

Survey of Well-being of Young Children (SWYC)

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www.theSWYC.org



SWYC Overview

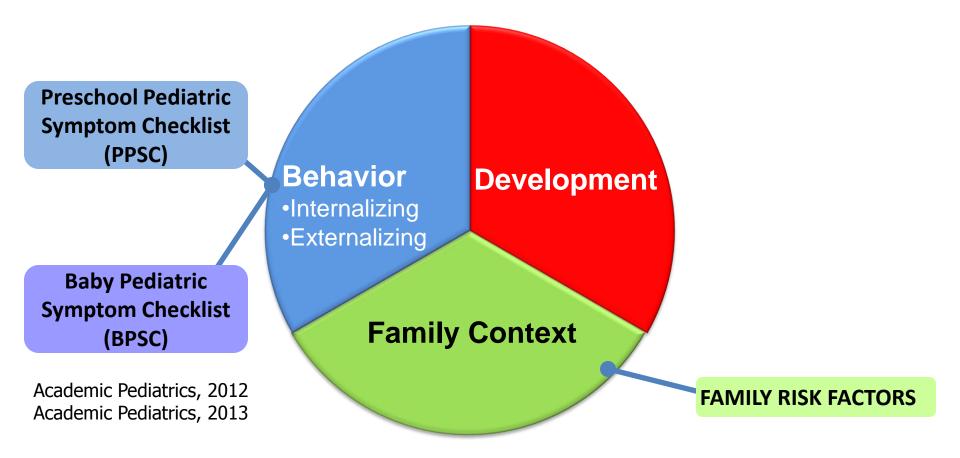
- Comprehensive screening tool (development, behavior, ASD risk, family context)
- Introduced in 2011
- Targeted age range: 1- 65 months
- Parent report measure
- May be administered by pediatricians, other clinicians, early educators

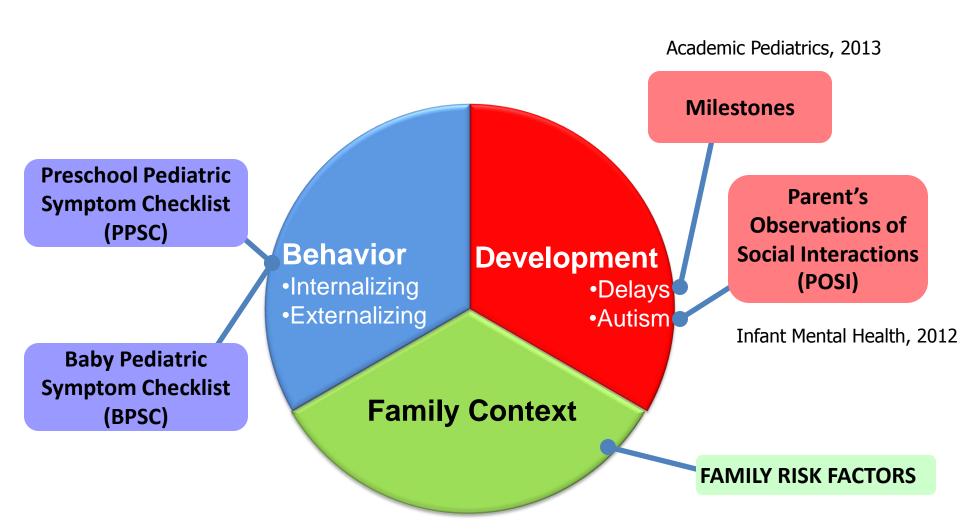


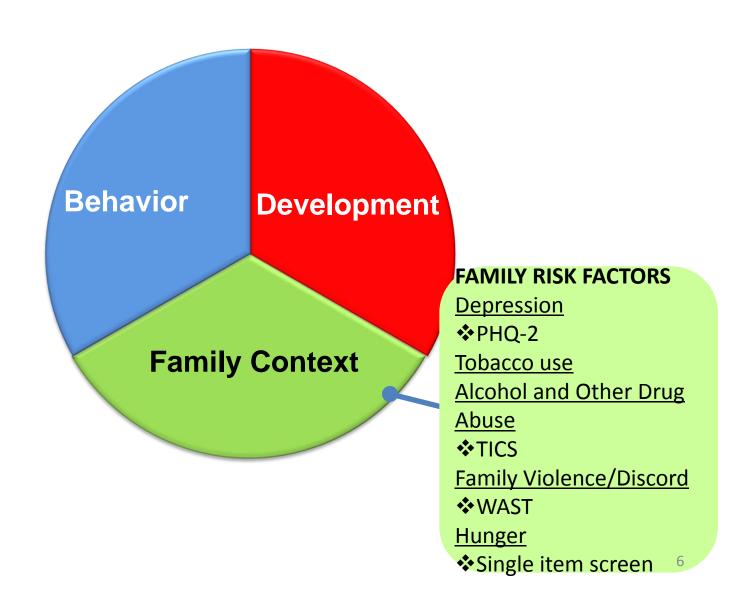


SWYC Overview (cont.)

- One double-sided form for each typical well-child visit
- Takes about 10 minutes to complete
- Questions are multiple choice and written at a 6th grade reading level
- Easy to administer and score
- Free of cost, available at www.theswyc.org
- Sensitive to cultural differences
- Amenable to electronic format







Creation of items

- Wrote and adapted >300 questions based on previously validated screening tests and expert opinion
- Obtained responses from > 1500 parents of children
 2 months to 5 years old
- Chose best questions based on statistical analyses of responses
- Borrowed Family Risk items from previously validated screening questionnaires



12-Month

SWYC: 12 months

12 months, 0 days to 14 months, 31 days

Child's Name: Birth Date: Today's Date:

DEVELOPMENTAL MILESTONES

These questions are about your child's development. Please tell us how much your child is doing each of these things. If your child doesn't do something any more, choose the answer that describes how much he or she used to do it. Please be sure to answer ALL the guestions.

	Not Yet	Somewhat	Very Much
Picks up food and eats it		• • • • • •	②
Pulls up to standing · · · · · · · · · · · · · · · · · · ·		10	②
Plays games like "peek-a-boo" or "pat-a-cake"			②
Calls you "mama" or "dada" or similar name · · · · · · · · · · · ·			②
Looks around when you say things like "Where's your bottle?" or "Where's your blanket?"		• • • • • • • • • • • • • • • • • • • •	②
Copies sounds that you make			②
Walks across a room without help · · · · · · · · · · · · · · ·		• • • • • •	②
Follows directions - like "Come here" or "Give me the ball" · · · ·		• • • • • • •	②
Runs		• • • • • •	②
Walks up stairs with help · · · · · · · · · · · · · · · · · ·			②

BABY PEDIATRIC SYMPTOM CHECKLIST (BPSC)

These questions are about your child's behavior. Think about what you would expect of other children the same age and tell us how much each statement applies to your child.

Does your child have a hard time being with new people?	. (2)
Does your child have a hard time in new places? · · · · · · · · · · · · · · · · · · ·	- ②
Does your child have a hard time with change? · · · · · · · · · · · · · · · · · · ·	. ②
Does your child mind being held by other people? · · · · · · · · · · · · · · · · · · ·	. ②
Does your child cry a lot? · · · · · · · · · · · · · · · · · · ·	. (3)
Does your child have a hard time calming down?	. ②
Is your child fussy or irritable?	. ②
Is it hard to comfort your child? · · · · · · · · · · · · · · · · · · ·	. ②
Is it hard to keep your child on a schedule or routine? $\cdots \cdots \odot \cdots \odot \cdots \odot \cdots \odot \cdots$. (2)
Is it hard to put your child to sleep?	. (2)
Is it hard to get enough sleep because of your child? · · · · · · · · · · · · · · · · · · ·	. ②
Does your child have trouble staying asleep? · · · · · · · · · · · · · · · · · · ·	. ②
rsion 1, 10/1/2013	

24-Month



SWYC: 24 months

23 months, 0 days to 28 months, 31 days

Child's Nam Birth Date:

Today's Date:

DEVELOPMENTAL MILESTONE

These questions are about your child's development. Please tell us how much your child is doing each of these things. If your child doesn't do something any more, choose the answer that describes how much he or she used to do it. Please be sure to answer ALL the questions.

	NOT LET	Somewhat	very muci
Names at least 5 body parts - like nose, hand, or tummy		①	②
Climbs up a ladder at a playground		①	②
Uses words like "me" or "mine"		①	②
Jumps off the ground with two feet		①	②
Puts 2 or more words together - like "more water" or "go outside"		①	②
Uses words to ask for help			②
Names at least one color · · · · · · · · · · · · · · · · · · ·		①	②
Tries to get you to watch by saying "Look at me"		①	②
Says his or her first name when asked · · · · · · · · · · · ·		①	②
Draws lines · · · · · · · · · · · · · · · · · · ·		①	②

PRESCHOOL PEDIATRIC SYMPTOM CHECKLIST (PPSC)

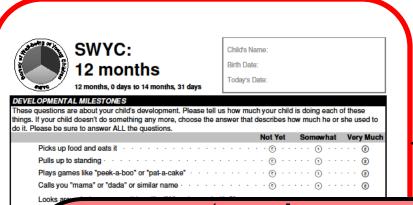
These questions are about your child's behavior. Think about what you would expect of other children the same age, and tell us how much each statement applies to your child.

		Not at all	Somewhat	Very Much
Does your child	Seem nervous or afraid? · · · · · · · · · · ·			②
	Seem sad or unhappy? · · · · · · · · · · · · · · · · · · ·		①	②
	Get upset if things are not done in a certain way?		10	②
	Have a hard time with change?			②
	Have trouble playing with other children? · · · ·		①	②
	Break things on purpose?		10	②
	Fight with other children?		①	②
	Have trouble paying attention?		10	②
	Have a hard time calming down?		10	②
	Have trouble staying with one activity? · · · · ·			②
ls your child	Aggressive?		10	②
	Fidgety or unable to sit still?			②
	Angry?		①	②
ls it hard to	Take your child out in public?			@
	Comfort your child?		①	@
	Know what your child needs?		①	@
	Keep your child on a schedule or routine?			②
	Get your child to obey you?		(1)	②
Version 1, 10/1/2013				

12-Month

Milestones

24-Month





Rirth Date:

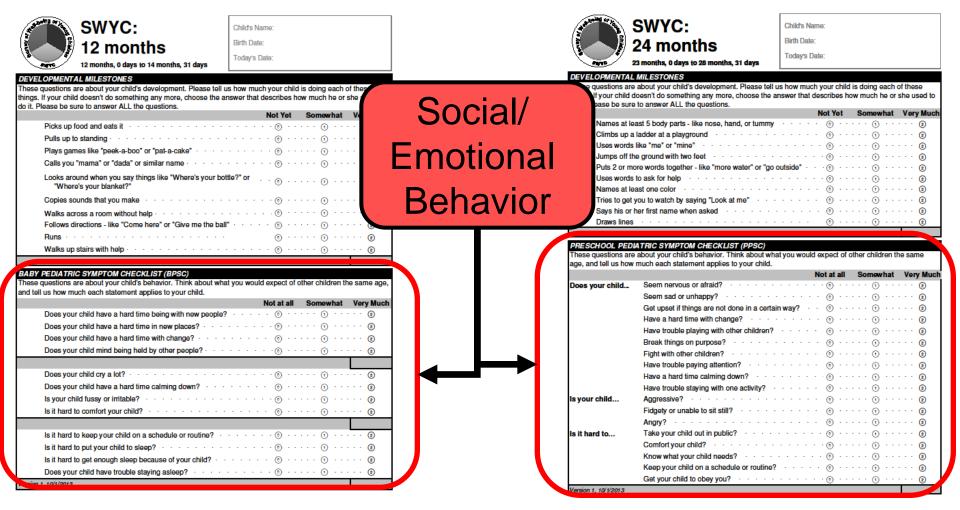
(2)

Names at least 5 body parts - like nose, hand, or tummy		 ①	②
Climbs up a ladder at a playground · · · · · · · · ·		 ①	②
Uses words like "me" or "mine"		 10	②
Jumps off the ground with two feet		 ①	②
Puts 2 or more words together - like "more water" or "go o	utside" ·	 ①	②
			_

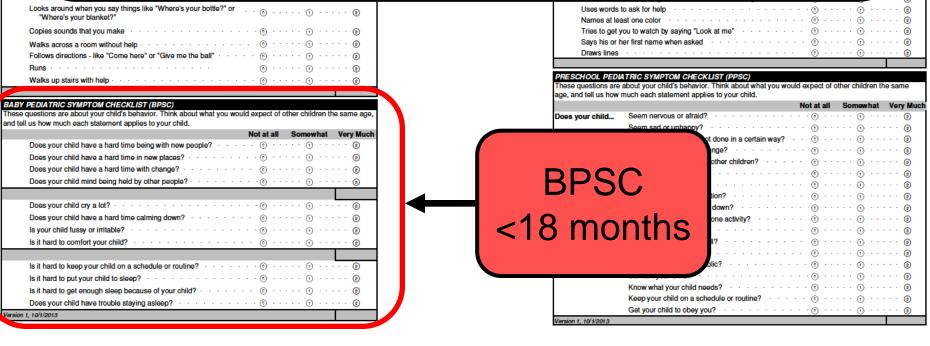
- Separate 'form' for each age on pediatric visit schedule
- •10 items per age
- •3 Response options
- Score is sum of items (also IRT scoring)
- Results can be charted on "growth curve"
- Preliminary validation
 - Predicts developmental delay: sensitivity >70% & specificity >70% for most forms
 - Consistent association with ASQ-3 across forms

12-Month

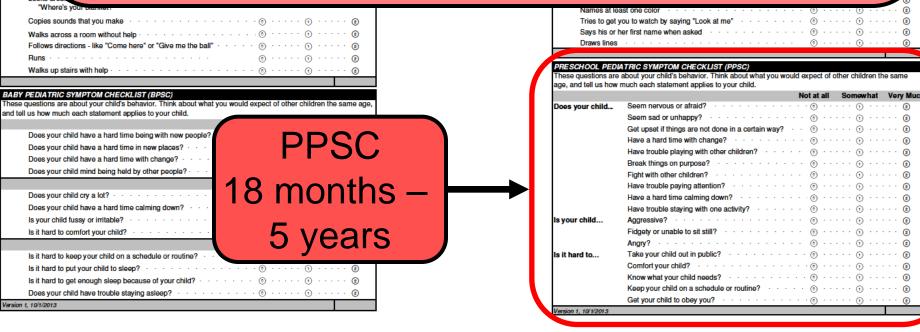
24-Month



- Based on the Pediatric Symptom Checklist (PSC)
- •12 items, three subscales
- •Each scale score is sum of items; score ≥ 3 is positive
- •Cronbach's Alpha: ~.69-.81 across scales
- Retest reliability: .70-.81 across scales
- •Overall BPSC compared to ASQ-SE: Sensitivity = 74%, Specificity = 83%



- Based on the Pediatric Symptom Checklist (PSC)
- •18 items, one overall scale
- •Total score is sum of items; score ≥ 9 is positive
- Cronbach's Alpha: ~.87
- Retest reliability: .75
- •Compared to CBCL: Sensitivity = 88%, Specificity = 89%
- Compared to diagnosis: Sens = 86%, Spec = 77%



Back of SWYC Forms

12-Month

PARENT'S CONCERNS		Not at a	ll Somewha	- Ver	y much
Do you have any concerns about your child's learning or de	velopment?		0		0
Do you have any concerns about your child's behavior?		0	0	0	
FAMILY QUESTIONS					
1 Does anyone smoke tobacco at home?	Yes ③	No No			
 2 In the last year, have you ever drunk alcohol or used dru 3 Have you felt you wanted or needed to cut down on your 		•		⊙	(N)
4 Has a family member's drinking or drug use ever had a t	oad effect or	n your child	?	•	N
In the past month was there any day when you or anyon you did not have enough money for food?	e in your far	nily went hu	ingry because	•	®
Over the past two weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days		y every lay
6 Having little interest or pleasure in doing things? 7 Feeling down, depressed, or hopeless?	0	0	0		0 0
8 In general, how would you describe your relationship with your spouse/partner?	No tension	Some tension	A lot of tension	Not applicable	
Do you and your partner work out arguments with:	No difficulty	Some difficulty	Great difficulty		plicable

24-Month

	CIAL INTERAC										
Does your child bring things to you to show them to you?	Many times a day	A few times a day	A few times a week	Less than once a week	Nev	ver					
you to snow them to you?	0	0	0	0	C						
	Always	Usually	Sometimes	Rarely	Nev	/er					
Is your child interested in playing with other children?	0	0	0	0	C						
When you say a word or wave your hand, will your child try to copy you?	0	0	0	0	0						
Does your child look at you when you call his or her name?	0	0	0	0	О						
Does your child look if you point to something across the room?	0	0	0	0	О						
How does your child <u>usually</u> show you something he or she wants? Says a word Points to it for what he with one or she wants finger for it my hand on it											
(please check all that apply)]					
What are your child's favorite play activities?	Playing with dolls or stuffed animals	Reading books with you	Climbing, running and being active	Lining up toys or other things	Watching thing go round and round like fans or wheels						
(please check all that apply)											
PARENT'S CONCERNS											
			Not at a		,	much					
Do you have any concerns about your			_	0		0					
Do you have any concerns about your	child's behavio	r?	0	0	(0					
FAMILY QUESTIONS					Soften mare any consense about your same obstraction.						
Yes No											
1 Does anyone smoke tobacco at home?											
		ed drugs more	e than you mea	nt to?	(N					
2 In the last year, have you ever drun	k alcohol or use	_	•		⊙⊙	(N) (N)					
2 In the last year, have you ever drun 3 Have you felt you wanted or needed	k alcohol or use d to cut down o	n your drinkin	g or drug use i	n the last year?	(O) (O)	(N) (N)					
2 In the last year, have you ever drun 3 Have you felt you wanted or needed 4 Has a family member's drinking or o	k alcohol or use I to cut down o Irug use ever h	n your drinkin ad a bad effe	g or drug use i ct on your child	n the last year? I?	②③②②②	(8)					
2 In the last year, have you ever drun 3 Have you felt you wanted or needed	k alcohol or use d to cut down o drug use ever h y when you or a	n your drinkin ad a bad effe	g or drug use i ct on your child	n the last year? I?	(O) (O)	(N) (N)					
2 In the last year, have you ever drun 3 Have you felt you wanted or needed 4 Has a family member's drinking or on In the past month was there any day	k alcohol or use d to cut down o drug use ever h y when you or a food? have you bee	n your drinkin ad a bad effe anyone in you	g or drug use in ct on your child ir family went h	n the last year? I?	②③②②②	8 8 8					
2 In the last year, have you ever drun 3 Have you felt you wanted or needed 4 Has a family member's drinking or o 5 In the past month was there any day you did not have enough money for Over the past two weeks, how often	k alcohol or use i to cut down o drug use ever h y when you or a food? have you bee oblems?	n your drinkin ad a bad effe anyone in you	g or drug use in ct on your child r family went h	n the last year? !? ungry because More than	0 0 0 0	® ® ® ® ® ® ® wery day					
2 In the last year, have you ever drun 3 Have you felt you wanted or needed 4 Has a family member's drinking or o 5 In the past month was there any day you did not have enough money for Over the past two weeks, how often bothered by any of the following pro	k alcohol or use if to cut down of drug use ever h y when you or a food? have you bee oblems? doing things?	n your drinkin ad a bad effe anyone in you Not at	g or drug use i ct on your child ir family went h Several days	n the last year? !? ungry because More than half the days	⊙ ⊙ ⊙ ⊙ ⊙ Nearly ev	® ® ® ® ® wery day					
2 In the last year, have you ever drun 3 Have you felt you wanted or needed 4 Has a family member's drinking or o 5 In the past month was there any da you did not have enough money for Over the past two weeks, how often bothered by any of the following pr 6 Having little interest or pleasure in o	k alcohol or usid to cut down or drug use ever h y when you or a food? have you bee oblems? loing things? ess?	n your drinkin ad a bad effe anyone in you Not at No pensio	g or drug use is ct on your childs if family went he all Several days Some Some tension	n the last year? If youngry because More than half the days A lot of tension	© © © © Mearly ev	® ® ® ® wery day					
2 In the last year, have you ever drun 3 Have you felt you wanted or needed 4 Has a family member's drinking or or 5 in the past month was there any dar you did not have enough money for Over the past two weeks, how often bothered by any of the following pr 6 Having little interest or pleasure in or 7 Feeling down, depressed, or hopele In general, how would you describe	k alcohol or use to cut down or drug use ever h y when you or a food? have you bee oblems? doing things? uses? your	n your drinkin ad a bad effe anyone in you Not at No tensio No	g or drug use is ct on your child refamily went h	More than half the days A lot of	© © © © Nearty ev	(N)					

Back of SWYC Forms

Autism: 12-Mo POSI (16-30 months)

24-Month

PARIENT'S CONCERNS Not at all Somewhat Very much Do you have any concerns about your child's learning or development? Do you have any concerns about your child's behavior? FAMILY QUESTIONS 1 Does anyone smoke tobacco at home? 2 In the last year, have you ever drunk alcohol or used drugs more than you meant to? 3 Have you'd!
•6 "critical items" based
on MCHAT
 1 additional item about play
•5 response options
•3 responses in top 3
categories = positive screen
•Cronbach's Alpha: .8386
•Sensitivity: 83%
(89% in clinical setting)
•Specificity: 75%

(54% in clinical setting)

PARENT'S OBSERVATIONS OF SO	CIAL INTERAC	CTIONS (POS	SD .			
Does your child bring things to you to show them to you?	Many times a day	A few times a day	A few times a week	Less than once a week	Neve	r
you to show them to you?	0	0	0	0	0	
	Always	Usually	Sometimes	Rarely	Neve	ır
Is your child interested in playing with other children?	0	0	0	0	0	
When you say a word or wave your hand, will your child try to copy you?	0	0	0	0	0	
Does your child look at you when you call his or her name?	0	0	0	0	0	
Does your child look if you point to something across the room?	0	0	0	0	0	
How does your child <u>usually</u> show you something he or she wants? Says a word Points to it for what he with one or she wants finger for it my hand on it					Grunts, cries or screams	
(please check all that apply)						
What are your child's favorite play activities?	Playing with dolls or stuffed animals	Reading books with you	Climbing, running and being active	Lining up toys or other things	Watching go round round like or whe	and fans
(please check all that apply)						
PARENT'S CONCERNS			Not at a	all Somewhat		
Do you have any concerns about your	child's loarning	or developm		an Somewnan	t Very n	nucn
Do you have any concerns about your			0	Õ		,
FAMILY QUESTIONS	oring o portavio					
PAMILI QUESTIONS					Yes	No
1 Does anyone smoke tobacco at hor	ne?				⊙	N
2 In the last year, have you ever drun		_	-		⊚	N
3 Have you felt you wanted or needed	d to cut down o	n your drinkin	g or drug use i	n the last year?	\odot	N
4 Has a family member's drinking or o					⊙	N
In the past month was there any day when you or anyone in your family went hungry because you did not have enough money for food?						N

0

0

tension

0

tension

Some

difficulty difficulty

Over the past two weeks, how often have you been

bothered by any of the following problems?

7 Feeling down, depressed, or hopeless?

o In general, how would you describe your

relationship with your spouse/partner?

6 Having little interest or pleasure in doing things?

9 Do you and your partner work out arguments with:

Nearly every day

0

0

Not applicable

Not applicable

More than

half the days

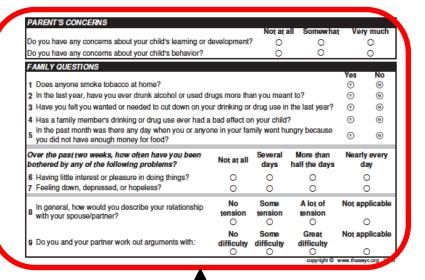
A lot of

Great

difficulty

tension

12-Month



Previously validated questions selected from the research literature

- Parental depression
- Parental substance use (tobacco, alcohol, other drugs)
- Parental discord
- Hunger

Do you have any concerns about your child's learning or development? 0 0 1 Does anyone smoke tobacco at home? (N) 2 In the last year, have you ever drunk alcohol or used drugs more than you meant to? N 3 Have you felt you wanted or needed to cut down on your drinking or drug use in the last year? (N) 4 Has a family member's drinking or drug use ever had a bad effect on your child? In the past month was there any day when you or anyone in your family went hungry because you did not have enough money for food? Over the past two weeks, how often have you been More than Nearly every day bothered by any of the following problems? half the days 6 Having little interest or pleasure in doing things? 0 7 Feeling down, depressed, or hopeless? 0 A lot of Not applicable In general, how would you describe your tension tension relationship with your spouse/partner? 0 Great Not applicable Some Do you and your partner work out arguments with: difficulty difficulty

Family Risk Questions

Summary: SWYC

- Accuracy (sensitivity and specificity) comparable to longer screening instruments
- Comprehensive (cognitive, motor, language and socialemotional development; risk factors)
- Amenable to electronic format
- Freely available at www.theSWYC.org
- Available in English, Spanish, Burmese, Nepali, and Portuguese



Current & future work

- RO1 from NICHD:
 - Large-scale validation with "gold standard" assessment
 - Study longitudinal use
 - Comparative effectiveness with other screening instruments
- Translation into other languages
- Study use and value in settings other than pediatrics
- Longitudinal screening
- Electronic administration
- Population surveillance



Publications

- Sheldrick, R.C. & Perrin, E.C. (2013) Evidence-based milestones for surveillance of cognitive, language and motor development. *Academic Pediatrics*. 13(6):577-86. doi: 10.1016/j.acap.2013.07.001.
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- Sheldrick, R.C., Merchant, S., Perrin, E.C (2011). Identification of developmental-behavioral disorders in primary care: A systematic review. *Pediatrics*, 128:356-363, PMID 21727101.
- Sheldrick, R.C., Perrin, E.C (2009). Surveillance of children's behavior and development: Practical solutions for primary care. *Journal of Developmental and Behavioral Pediatrics*, 30:151-3. PMID 19363367.

