Discussing and identifying youth psychosocial problems during primary care visits

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Background

- 10-20% of youth in primary care settings have mental health symptoms or psychosocial problems
- Identification of these problems during primary care visits is poor – overlook half or more
- Half or less of parents discuss their child's psychosocial problem with the primary care provider
- Not much research has explained why?

(Ringel & Sturm, 2001; Horwitz, et al., 1998; Horwitz et al. 1992; Reijneveld et al., 2004; Rushton & Garrison)

Why psychosocial discussion is not part of primary care visits:

- Providers are uncomfortable: training, culture
- Parents are uncomfortable: culture, stigma, ethnicity, race, not confident in provider
- Children do not speak
- Competing demands: too much to do and too little time
- Treatment system and provider characteristics (attitudes, skills, resources)

Why is identification poor?

- Psychosocial information not gathered
- Treatment system and provider characteristics (attitudes, skills, resources)
- Parents, providers, and children have different perceptions of problem

Research Aim 1

- To examine factors related to psychosocial discussion during primary care visits
- 1) Mental symptoms, impairment, burden
- 2) Presence of youth physical pain
- 3) Treatment system and provider characteristics

Research Aim 2

- To examine factors related to provider identification of youth psychosocial problems
- 1) Mental health symptoms, impairment, burden
- 2) Psychosocial talk during visit
- 3) Presence of youth physical pain
- 4) Treatment system and provider characteristics

Design

- 54 primary care providers from 15 clinics in Baltimore, Washington, DC and rural New York – 1 clinic served Spanish speaking patients
- Families systematically recruited from the waiting rooms of clinics (n=816)
- Age 5-16, scheduled with a participating provider, and pain <=4

Provider Characteristics

- Race, gender, age, training, years at practice
- Psychosocial orientation (Physician Belief Scale)
- Job stress (General Job Satisfaction Questionnaire)
- Job control (Generic Job Stress Questionnaire)
- Confidence in psychosocial treatment skills
- Confidence in referral skills
- Accessibility of mental health specialists

Youth emotions and behaviors

- Strengths and Difficulties Questionnaire (SDQ)
- All parents, youth age 11-16, and teachers of youth age 5-10
- Emotions, conduct, hyperactivity, peer relations, prosocial behavior, impairment, and burden
- Responses from more than one rater are combined to generate “possible” or “probable” diagnostic classifications

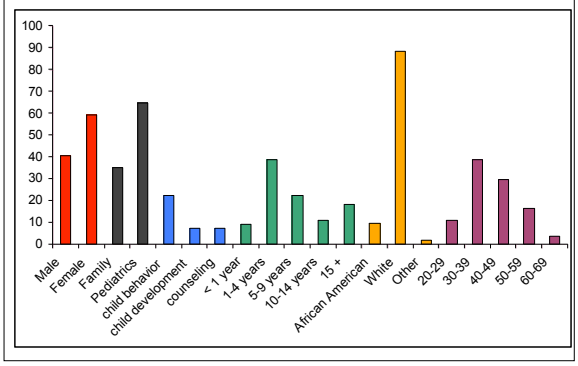
Youth bodily pain

- Child Health Questionnaire (CHQ) completed by parents and youth
- *Bodily pain scale* measures severity and duration of pain
- Lower score indicates greater pain
- Classified as having bodily pain if score below 79.78

Psychosocial Discussion

- Directly following the visit parents responded to whether they discussed:
- 1) child behaviors
- 2) child emotions
- 3) child getting along with others
- 4) school performance
- 5) parent stresses and strains
- 6) family stresses and strains

Provider Demographics

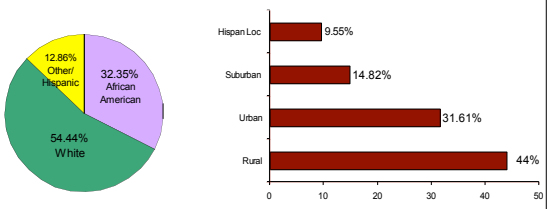


Provider Scale Scores

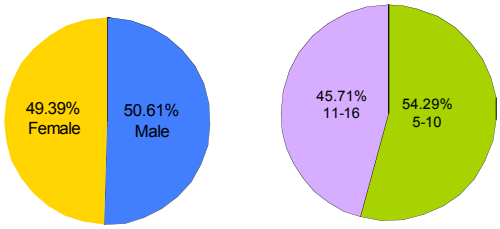
	Alpha	Scale range	Sample range	Mean	SD
Ease of Consultation Scale	.813	8-40	13-32	22.85	4.55
Generic Job Satisfaction Questionnaire	.878	12-60	22-51	35.21	7.06
Global Job Satisfaction Scale	.839	5-25	9-25	19.01	3.07
Physician Belief Scale Attitudes Subscale	.654	8-40	8-23	14.26	3.19
Physician Belief Scale Burden Subscale	.680	6-30	8-25	17.35	3.08
provider Confidence Scale	.901	11-55	12-53	32.05	7.77
Referral Comfort Scale	.948	9-45	16-36	25.96	5.83

Family Race and Location

- 816 families



Youth Age and Gender



Analysis

- T-tests and chi-square
- Multivariate random effects logistic regression
- Accounts for the clustering of youth within provider and unmeasured provider characteristics

SDQ Parent Scores

	N	%
Parent SDQ Scale Scores (Medium to High Range)		
Emotion (4-10)	261	32.06
Conduct (3-10)	294	36.11
Hyper (6-10)	264	32.43
Prosocial Behavior (0-7)	245	30.02
Peer relations (3-10)	284	34.88
Any impairment	283	35.02
Any burden	316	38.77
CHQ Bodily Pain Scale		
< 79.78	249	31.12%
< 57.72	90	11.25%

SDQ Diagnostic Scores

SDQ Domain	Overall Proportion N (%)	Parent Only	Parent and Youth	Parent and Teacher
Affective Possible	107 (13.17%)	24	54	29
Affective Probable	39 (4.80%)	3	27	9
Conduct Possible	141 (17.36%)	39	67	35
Conduct Probable	105 (12.93%)	16	47	42
Hyperactivity Possible	107 (13.17%)	17	51	39
Hyperactivity Probable	75 (9.23%)	27	20	28
Any possible	**173 (21.30%)**	**44**	**83**	**46**
Any probable	**169 (20.81%)**	**35**	**76**	**58**
Any possible or probable	**342 (42.22%)**	**79**	**159**	**104**

Outcome: Psychosocial Discussion

- Parent reported after visit: behavior, mood, getting along with others, school, parent stress, family stress

Regression:

Discussed child behavior = Constant + hyperactivity + conduct + prosocial behavior + affective + peer problems + impairment + burden + physical pain + insurance + youth gender + youth age + youth race + mental health service use + parent distress + intervention + doc gender + specialty + geography + job control + job satisfaction + beliefs/attitudes + burden + referral + confidence + accessibility of specialists

Psychosocial Discussion and SDQ Score

Type of Discussion	All Youth	SDQ Positive Youth (n=331)	SDQ Negative Youth (n=448)	Pearson Chi-Square	p-value
Parent stress	38.44% 269/777	42.37% 139/328	29.41% 130/442	13.92	<0.0001
Family stress	32.42% 250/771	39.39% 130/330	27.21% 120/441	12.78	<0.0001
School	65.63% 508/774	71.51% 236/330	61.26% 272/444	8.82	0.003
Getting along with others	47.52% 366/770	51.96% 172/331	43.89% 194/442	5.51	0.019
Child mood	54.98% 425/773	65.25% 216/331	46.96% 209/445	27.21	<0.0001
Child behavior	55.31% 442/779	67.37% 223/331	48.88% 219/448	26.50	<0.0001
Any talk	74.90% 594/793	81.94% 272/335	70.30% 322/458	12.20	<0.0001

More psychosocial discussion during visits with SDQ positive youth

Psychosocial Discussion and Bodily Pain for All Youth

	Pain[1] n=249 (31.11%)	No pain n=551 (68.87%)	Pearson Chi- Square	p-value
Parent stress	31.35% 74/236	36.88% 194/526	2.18	0.140
Family stress	26.69% 63/236	34.79% 183/526	4.88	0.027
School	52.32% 124/237	71.15% 375/527	25.60	<0.0001
Getting along with others	35.32% 83/235	53.04% 279/526	20.45	<0.0001
Child mood	44.68% 105/235	59.73% 316/529	14.90	<0.0001
Child behavior	45.37% 108/238	61.95% 329/531	18.41	<0.0001

5-20% more psychosocial discussion in the absence of bodily pain

Psychosocial Discussion and Bodily Pain for SDQ possible or probable youth (n=341)

	Pain[1] N=126 (36.95%)	No pain N=215 (63.04%)	Pearson Chi- Square	p-value
Parent stress	39.71% 39/117	47.78% 97/203	6.43	0.012
Family stress	31.35% 37/118	43.62% 89/204	4.72	0.030
School	56.41% 66/117	79.51% 163/205	19.34	<0.0001
Getting along with others	41.02% 48/117	59.11% 120/203	9.73	0.002
Child mood	54.78% 63/115	72.68% 149/205	10.55	0.001
Child behavior	57.62% 68/118	73.17% 150/205	8.24	0.004

8-24% more psychosocial discussion in the absence of bodily pain

Psychosocial Discussion and Physical Pain for SDQ Probable Youth (n=174)

	Pain[1] N=71	No pain N=96	Pearson Chi-Square	p-value
Parent stress	37.68% 26/69	52.17% 48/92	3.33	0.068
Family stress	36.23% 25/69	45.36% 44/94	1.82	0.177
School	62.31% 43/69	84.04% 79/94	9.97	0.002
Getting along with others	46.37% 32/69	62.36% 58/93	4.10	0.043
Child mood	65.67% 44/67	82.97% 78/94	6.38	0.012
Child behavior	65.21% 45/69	84.04% 76/94	5.08	0.024

9-20% more psychosocial discussion in the absence of bodily pain

Results: Regressions of Discussion

Likelihood of all psychosocial discussion

+ Hyperactivity symptoms (OR: 2.65 CI: 1.56 4.48)
- Bodily pain (OR:.413 CI: .286 .597
- Male provider (OR:.480 CI:.310 .747)

Likelihood of discussion about family stress and parent stress

+ Conduct symptoms (OR 1.56 CI: 1.02 3.37)
+ Provider confidence in psychosocial treatment skills (OR: 1.37 CI: 1.08 1.75)

Outcome: Provider Identification

- Directly following the visit, providers responded to the question:

"Is there a new, ongoing, or recurrent psychosocial problem present?"

Regression equation:

Identification = Constant + SDQ + burden + physical pain + psychosocial discussion + insurance + youth gender + youth age + youth race + mental health service use + parent distress + intervention + doc gender + specialty + geography + job control + job satisfaction + beliefs/attitudes + burden + referral + confidence + accessibility of specialists + SDQ*provider burden + discussion* parent burden + discussion*pain

SDQ score and Provider Identification

	Identified	Not ident.	Total
SDQ + 43%	228	100	328
SDQ – 57%	143	294	437
Total	371	394	765

51% identified as having problem by provider
69% of SDQ + identified and 30% not identified
67% of SDQ – not identified and 33% identified

Results: Regression of Identification

+ SDQ possible or probable score (OR: 2.39 CI:1.50-3.81)

+ Psychosocial discussion (OR: 4.95 CI: 2.45-10.07)

+ One year increase in age (OR: 1.12 CI: 1.06-1.19)

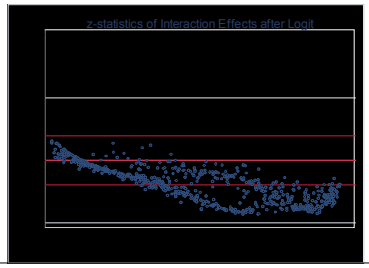
+ Mental health service use (OR: 1.15 CI: 1.87-5.15)

- Private insurance (OR: .547 CI: .346-.874)

- Accessibility of specialists (OR: .680 CI: .464-.970)

Negative interaction between SDQ score and provider burden

►Negative relationship with identification (coeff= -.437 CI: -.854 -.021)
►During visits with SDQ positive youth, as provider burden increased, the likelihood of identification of youth problems decreased.



Physician Belief Scale Burden Subscale Questions

- One reason I do not consider information about psychosocial problems is the limited time I have available
- Evaluating/treating psychosocial problems will cause me to be more overburdened
- So many issues to be investigated when seeing patients that I do not always consider psychosocial factors
- Investigating issues of psychosocial problems decreases my efficiency
- Patients will become more dependent on me if I raise psychological concerns
- Exploring psychosocial issues with the patient often causes me pain

When providers agreed with these statements they were less likely to identify SDQ positive youth.

Proportion of youth identified by SDQ score and provider burden

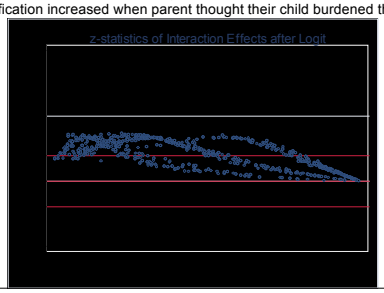
- Among SDQ positive youth the proportion of youth identified decreased when burden increased from average to high
- Among SDQ negative youth the proportion of youth identified increased when burden increased from average to high

PBS Burden Range	SDQ Positive	SDQ Negative	Total
High PBS burden (>20.43)	62.50%	45.23%	132
Ave PBS burden (14.27 – 20.43)	71.11%	32.85%	502
Low PBS burden (<14.27)	75.13%	20.73%	142
Total	333	443	

Providers less accurate in identification as burden increases

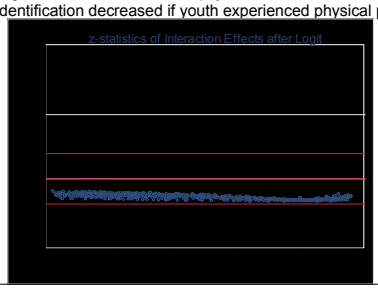
Positive interaction between parent burden and psychosocial discussion

- ►Positive relationship with identification (coeff=.991 CI: .021-1.96)
- ►During visits in which their was psychosocial discussion, the likelihood of identification increased when parent thought their child burdened the family



Negative interaction between psychosocial discussion and physical pain

- ► Negative relationship with identification (coeff= -.859 CI: -1.79-.072)
- ►During visits in which there was psychosocial discussion, the likelihood of identification decreased if youth experienced physical pain



Implications for Services

Discussion of psychosocial problems is more common in the absence of physical pain

Discussion of psychosocial problems is more common with female providers and with more confident providers

Discussion of psychosocial problems was related to externalizing symptoms, but not internalizing symptoms, impairment, or burden.

Implications for Services

Provider burden demonstrated a robust inverse relationship with accurate identification of problems

Reducing the real or perceived burden associated with treating youth psychosocial problems in primary care settings may improve provider identification

Implications for Services

The relationship between psychosocial discussion and identification was diminished by the presence of physical pain.

Provides support for the competing demands hypothesis

Implications for Services and Research

Accessibility of mental health specialists did not improve identification

Provider characteristics were highly individualistic and varied within clinic

Providers need skills to increase confidence, reduce burden, engage in psychosocial discussion, and differentiate between physical and mental health symptoms

What's missing and what's next?

- Are "treatment system" characteristics site or person specific?
  - ► Person specific in this sample - much disagreement within site about accessibility of consultation, job control, job satisfaction

Research Questions:
- Why do providers within sites disagree?
- When is appropriate to aggregate responses?
- How do we conceptualize these characteristics at the clinic level?
- How do results change depending on the "unit" of analysis?

What's missing and what's next?

Family Attitudes/Beliefs about Mental Health
- Relationship with outcomes

Research Questions:
- How are provider and family attitudes related?
- How important are provider and family attitudes relative to each other?
- How can services/interventions be responsive to both provider and family attitudes?

What's missing and what's next?

Perspective of Youth/Children
- 4 times as much information is directed to adult
- Youth and parents differ in perspectives

Research Question:
- Does directly engaging the child/youth in addition to the parent impact outcomes?

Research Agenda

- Theory driven
- Collaborative and builds on existing resources
- Determine which treatment system, provider, family, and youth characteristics influence outcomes of child mental health services
- Identify mechanisms that are amendable to change
- Build on existing interventions