Unmet Mental Health Need and Barriers to Care in Two Medicaid Systems

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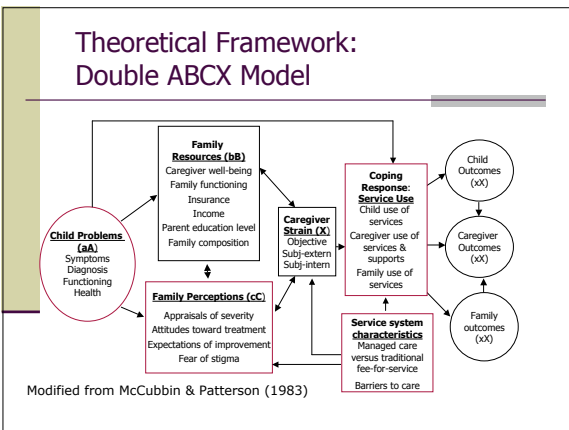
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Background

- Fewer than half of the children who need mental health services receive them.
- Approximately 11% receive specialty mental health treatment.
- Little is known about the barriers to care children experience and how they relate to child, family, service, or system characteristics.

Presentation Outline

- Conceptual framework
- Description of barriers reported by caregivers
- Relationship between barriers to care and rural residence after controlling for child and system characteristics
- Relationship between unmet mental health need and rural residence after controlling for child and system characteristics

Theoretical Framework: Double ABCX Model

Modified from McCubbin & Patterson (1983)

Current Study

Children ages 4-17 who meet clinical criteria for internalizing and externalizing symptoms

- Enrolled in Medicaid in two states
- Tennessee operated under managed care (*N*=248)
- Mississippi had a traditional fee-for-service system (*N*=260)
- Child and family characteristics and barriers to care from parent/caregiver interview
- Service use compiled from Medicaid claims data
- Rural residence defined as the proportion of residence in the county living in rural areas

Sample Characteristics

	Tennessee	Mississippi
Clinical Status		
Mean CBCL Externalizing	71.92	71.91
% Borderline/Clinical	71%	68%
Mean CBCL Internalizing	64.33	65.10
% Borderline/Clinical	65%	69%
Mean Columbia Impairment Scale	25.20	24.23
% Clinical	81%	80%
Demographics		
Mean Age (years)	11.5	11.5
% Male	68%	69%
% African American	21%***	67%
Caregiver Years of Education	12.31**	11.62
% High School Graduate	73%*	66%
Percent of county residents living in rural area	25%***	32%

***$p < .0001$, ** $p < .001$, *$p < .05$

Barriers to Care in Children's Mental Health Services

Barriers to Care: Family Perceptions

	Tennessee	Mississippi
Afraid of what family and friends would think	3.6%	8.1%*
Didn't think problems were serious enough	13.2%	17.2%
Afraid child would be labeled	20.5%	26.2%
Thought treatment wouldn't help	4.5%	6.4%
Child refused to go	13.0%	11.1%
Did not know where to go/no-one told us where to go	23.2%	19.5%
If family perception endorsed-Mean (SD)	1.79 (1.0)	1.88 (1.1)

***$p < .0001$, ** $p < .001$, *$p < .05$

Barriers to Care: Location/Time Convenience

	Tennessee	Mississippi
Transportation problems	16.3%	23.8%*
Location not convenient	21.7%	17.4%
Appointment times not convenient	15.7%	14.2%
If location/time endorsed-Mean (SD)	1.60 (0.73)	1.66 (0.72)*

***$p < .0001$, ** $p < .001$, *$p < .05$

Barriers to Care: Provider/Payer Barriers

	Tennessee	Mississippi
No program available/ no space in program	11.1%	11.1%
Doctor/provider refused to help or would not take Medicaid	11.8%*	6.4%
Did not have money to pay	23.8%	19.5%
Medicaid would not pay	24.4%***	12.5%
Had to wait a long time	24.4%**	16.0%
If provider/payer endorsed-Mean (SD)	2.05 (1.0)**	1.81 (1.0)

***$p < .0001$, ** $p < .001$, *$p < .05$

Child, Family, and System-level Characteristics Potentially Associated with Barriers

- Child externalizing symptoms (CBCL)
- Child internalizing symptoms (CBCL)
- Child age
- Child race
- Child gender
- Caregiver education
- Service system (Mississippi v. Tennessee)
- Percent of county that is rural

Brannan & Heflinger, 2004

Predicting Family Perceptions Barriers

Predictor variables	Tennessee N = 248 $R^2 = .08, p < .01$ Est	SE	Mississippi N = 260 $R^2 = .09, p < .001$ Est	SE	Combined N = 508 $R^2 = .07, p < .001$ Est	SE
System (Tenn v. Miss)	--	--	--	--	-.46*	.23
System * percent rural	--	--	--	--	.01*	.00
Percent rural	-.00	.00	-.01*	.00	-.01**	.00
Caregiver education	-.06*	.03	.01	.03	-.02	.02
Internalizing symptoms	.01	.01	.01	.01	.01*	.01
Externalizing symptoms	.03**	.01	.01	.01	.02**	.01
Child age	.02	.03	.09*	.03	.01**	.02
Girl	-.02	.16	-.13	.17	-.09	.11
African American	.03	.20	-.22	.17	-.11	.13

***p < .0001, ** p < .001, *p < .05

Predicting Location & Time Barriers

Predictor variables	Tennessee N = 248 $R^2 = .03, p = .44$ Est	SE	Mississippi N = 260 $R^2 = .05, p < .05$ Est	SE	Combined N = 508 $R^2 = .09, p < .001$ Est	SE
System (Tenn v. Miss)	--	--	--	--	-.05	.17
System * percent rural	--	--	--	--	.00	.00
Percent rural	ns	ns	-.00	.00	-.00	.00
Caregiver education	ns	ns	.01	.02	-.00	.02
Internalizing symptoms	ns	ns	.01	.01	.01	.01
Externalizing symptoms	ns	ns	.01	.01	.01	.01
Child age	ns	ns	.05*	.02	.03*	.03
Girl	ns	ns	.01	.13	-.00	.09
African American	ns	ns	-.02	.13	-.06	.10

***p < .0001, ** p < .001, *p < .05

Predicting Provider/Payer Barriers

Predictor variables	Tennessee N = 248 $R^2 = .05, p < .05$ Est	SE	Mississippi N = 260 $R^2 = .09, p < .001$ Est	SE	Combined N = 508 $R^2 = .08, p < .0001$ Est	SE
System (Tenn v. Miss)	--	--	--	--	.07	.22
System * percent rural	--	--	--	--	.00	.00
Percent rural	-.00	.00	-.00	.00	-.00	.00
Caregiver education	-.04	.04	.01	.03	.03	.02
Internalizing symptoms	.02**	.01	.01	.01	.02***	.01
Externalizing symptoms	.02	.01	.01	.01	.02*	.01
Child age	-.02	.03	.02	.03	-.00	.02
Girl	.35*	.18	-.29*	.15	.03	.12
African American	.08	.22	.47**	.14	.30*	.13

***p < .0001, ** p < .001, *p < .05

Variables Related to Barriers

Predictor variables	Family Perceptions TN	MS	Co	Location & Time TN	MS	Co	Provider/Payer TN	MS	Co
System (Tenn v. Miss)			-						
System * percent rural			+						
Percent rural			-						
Caregiver education	-								
Internalizing symptoms			+				+		+
Externalizing symptoms	+		+						+
Child age		+	+		+	+			
Girl							+	-	
African American								+	+

Unmet Mental Health Need among Children

Unmet Mental Health Need

Children met criteria for unmet need if they

1. had psychiatric symptomatology (CBCL) in the clinical range at the baseline data collection point, and

2. received no formal mental health services in the subsequent 12 months (Medicaid claims).

	Tennessee MC	Mississippi FFS
Number of children full sample	248	260
Met clinical criteria	59%	57%
Met clinical criteria but received no services	44%***	22%

***p < .0001, ** p < .001, *p < .05

Brannan & Heflinger, 2004

Bivariate Relationship between Barriers to Care and Unmet Need

In bivariate tests, no relationship was found between barriers to care and unmet need

- T-test showed no differences in number of barriers endorsed for family perceptions, location/time, provider/payer, or total barriers

- Chi-square test showed no differences between having reported any barriers (i.e., family perceptions, location/time, provider/payer, or total barriers) and unmet need

Predicting Unmet Need

Predictor variables	Tennessee		Mississippi		Combined	
	OR	CI	OR	CI	Est	SE
System (TN v. MS)	--	--	--	--	.979*	.397
System * Rural	--	--	--	--	.019*	.007
Percent rural	1.01*	1.0-1.0	.99	.98-1.00	-.009	.005
Child age	1.03	.95-1.12	1.01	.90-1.13	.017	.034
Girl	1.53	.90-2.61	2.04*	1.10-3.78	.567**	.205
African American	3.22**	1.60-6.45	3.31**	1.46-7.52	1.20***	.269
Caregiver education	1.00	.90-1.12	.97	.86-1.09	.567	.042
Externalizing symptoms	.99	.95-1.02	.98	.94-1.02	-.018	.014
Internalizing symptoms	1.02	.99-1.04	.98	.94-1.01	-.001	.010
Social functioning	.95**	.92-.99	.95*	.92-.99	-.047*	.014

*** $p < .0001$, ** $p < .001$, * $p < .05$

Variables Related to Unmet Need

Predictor variables	Tennessee	Mississippi	Combined
System (TN v. MS)			+
System * Rural			+
Percent rural	+		
Child age			
Girl		+	+
African American	+	+	+
Caregiver education			
Externalizing symptoms			
Internalizing symptoms			
Social functioning	-	-	-

Conclusions

Preliminary findings suggest that

- Families report facing barriers in several areas
- Families reported different types of barriers across systems
- There was more unmet mental health need in the managed care system compared to the fee-for-service system
- Across systems, unmet need was greater among African Americans, and lower for children with greater functional impairment
- Severity of symptoms did not predict unmet need
- Unmet need among rural residents is a bigger problem in the managed care system than in the fee-for-service system
- Barriers were not related to unmet need

Discussion

- The relationship between barriers to mental health care and service utilization is poorly understood
- It is likely that barriers to care are more salient for families whose children have the greatest challenges because they may feel a greater urgency to access services
- The lack of relationship between severity of symptoms and unmet need is likely due to the inclusion of only children who met clinical criteria for symptom severity
- In a sample of children who all met clinical criteria based on symptom severity, social functioning became the more salient predictor of receipt of services
- While rural residence was not a significant predictor of unmet need, its role differed across systems