



Western

# Continuity of Care in Children's Mental Health: Development of a Parent and Youth Measure

Juliana I. Tobon\*, Graham J. Reid, & Richard Goffin  
The University of Western Ontario, London, Ontario, Canada  
\*juliana.tobon@uwo.ca



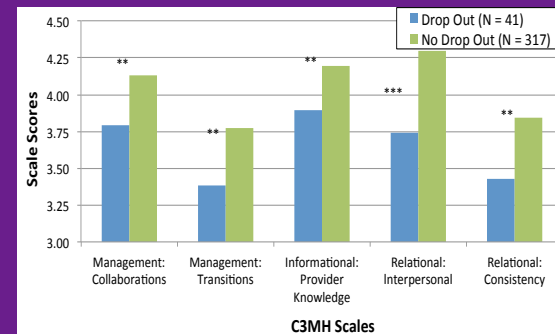
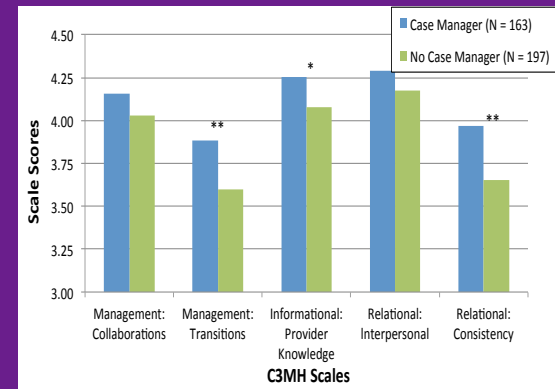
CIHR IRSC  
Canadian Institutes of Health Research  
Institut de recherche en santé du Canada

## Abstract

Continuity of care, which is how a patient experiences care over time as coherent and linked, has been identified as an indicator of health system performance and is considered an ethical principle of care. Yet, no instrument exists to measure continuity of care as experienced by parents and youth receiving services through the children's mental health (CMH) system. A new measure, Continuity of Care in Children's Mental Health (C3MH), is presented. The project involved: item generation, pre-testing, pilot testing, and validation. In the validation study, the 42-item C3MH was administered to 364 parents of children and youth, and to 57 youth ages 14 – 18, recruited from 13 CMH agencies in Ontario. Using EQS, a confirmatory factor analysis was conducted to determine the fit of data to the hypothesized model. A five-factor model with 25 items had an excellent fit for the parent measure (NNFI=.93; CFI=.94; IFI=.94; RMSEA=.046; 90% C.I. = .039, .053), and a three-factor fit had a fair fit for the 19-item youth measure (NNFI = .81; CFI = .83; IFI = .85; RMSEA = .066; 90% C.I. = .035, .089). Cronbach's alphas ranged from .77 to .93 and test-retest reliabilities ranged from .75 to .92. The C3MH is the first parent- and youth-report measure of continuity in CMH and will be useful for assessing and tracking improvements in system integration and service coordination.

## Results: Parent

	Management: Collaborations	Management: Transitions	Informational: Provider Knowledge	Relational: Interpersonal	Relational: Consistency
<b>Convergent Validity</b>					
Depression (DASS-21)	-0.053	.11*		-0.009	-0.018
Anxiety (DASS-21)	0.015	-0.009		0.025	0.092
Stress (DASS-21)	0.007	-0.085		-0.011	0.051
General Stress (PSS)	0.004	-0.069		0.01	0.099
Satisfaction (CSQ)	.76***	.74***	.63***	.62***	.73***
Time in treatment			0.11		0.055
Barriers		-0.053			0.046
Parent-rated Alliance (WAI)				.75***	.62***
Clinician-rated Alliance (WAI)				.39***	.18**
<b>Clinician Ratings of Continuity</b>					
Consistency			.15*		-0.009
Teamwork	-0.056				
Service linkages		0.067			
Overall coordination	0.007	0.078	0.061	.14*	0.081
<b>Child adjustment (BCFPI)</b>					
Internalizing	0.1	-0.016	.17**	0.077	.11*
Externalizing	-0.077	-.14**	0.024	-.11*	0.02
Total Problem	0.013	-.12*	0.092	-0.023	0.086
Child Impairment	-0.048	-.12*	-0.014	-0.09	-0.014
Impact on Family	-0.11	-.25***	-0.086	-.18**	-0.086
<b>Discriminant Validity</b>					
<b>Social Desirability (BIDR)</b>					
Impression Management	0.07	0.04	0.06	0.002	0.05
IDEAS scale (NEO-PI-R)	0.07	0.02	0.08	0.07	0.08



Poster presented at the Annual Convention of the Canadian Psychological Association, Quebec City, QC, June 13-15, 2013.



Western

# Continuity of Care in Children's Mental Health: Development of a Parent and Youth Measure

Juliana I. Tobon\*, Graham J. Reid, & Richard Goffin  
The University of Western Ontario, London, Ontario, Canada  
\*juliana.tobon@uwo.ca



CIHR IRSC  
Canadian Institutes of Health Research  
Instituts de recherche en santé du Canada

## Abstract

Continuity of care, which is how a patient experiences care over time as coherent and linked, has been identified as an indicator of health system performance and is considered an ethical principle of care. Yet, no instrument exists to measure continuity of care as experienced by parents and youth receiving services through the children's mental health (CMH) system. A new measure, Continuity of Care in Children's Mental Health (C3MH), is presented. The project involved: item generation, pre-testing, pilot testing, and validation. In the validation study, the 42-item C3MH was administered to 364 parents of children and youth, and to 57 youth ages 14 – 18, recruited from 13 CMH agencies in Ontario. Using EQS, a confirmatory factor analysis was conducted to determine the fit of data to the hypothesized model. A five-factor model with 25 items had an excellent fit for the parent measure (NNFI=.93; CFI=.94; IFI=.94; RMSEA=.046; 90% C.I. = .039, .053), and a three-factor fit had a fair fit for the 19-item youth measure (NNFI = .81; CFI = .83; IFI = .85; RMSEA = .066; 90% C.I. = .035, .089). Cronbach's alphas ranged from .77 to .93 and test-retest reliabilities ranged from .75 to .92. The C3MH is the first parent- and youth-report measure of continuity in CMH and will be useful for assessing and tracking improvements in system integration and service coordination.

## Results: Youth

	Total Continuity	Management: Collaboration	Informational: Provider Knowledge	Relational: Interpersonal
<b>Convergent Validity</b>				
Depression (BCFPI)	-.075	-.087	.009	-.095
Satisfaction (CSQ)	.82***	.71***	.58***	.84***
Therapeutic Alliance (WAI)				.70***
<b>Child adjustment (BCFPI)</b>				
Internalizing	-.035	-.059	.057	-.053
Externalizing	-.050	.104	-.051	-.134
Total Problem	-.048	.003	.024	-.101
Child Impairment	-.090	-.039	-.072	-.104
<b>Discriminant Validity</b>				
<b>Social Desirability (BIDR)</b>				
Impression Management	.087	.039	.13	.080

Measure		Scale Number of Items	Maximum Number of Omitted Items
C3MH Parent Measure	Management: Collaboration	7	3
	Management: Transitions	5	2
	Informational: Provider Knowledge	5	1
	Relational: Interpersonal	4	1
	Relational: Consistency	4	1
	Total	25	5
C3MH Youth Measure	Management: Collaboration	6	3
	Informational: Provider Knowledge	5	1
	Relational: Interpersonal	8	1
	Total	19	3

## Discussion

- Expected group differences supported: between case management and drop out groups
- Further validation needed in other jurisdictions
- Development of other language versions
- Use of measure to evaluate system reform efforts (e.g., matched comparisons between sites that have implemented initiatives to improve continuity versus those that have not)

Poster presented at the Annual Convention of the Canadian Psychological Association, Quebec City, QC, June 13-15, 2013.