



## BRIEF COMMUNICATION

# Comparing Self-Concept Among Youth Currently Receiving Inpatient Versus Outpatient Mental Health Services

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## Abstract

**Objective:** This study compared levels of self-concept among youth who were currently receiving inpatient versus outpatient mental health services. **Method:** Forty-seven youth were recruited from the Child & Youth Mental Health Program at McMaster Children's Hospital. Self-concept was measured using the Self-Perception Profile for Children and Adolescents. **Results:** The mean age was 14.5 years and most participants were female (70.2%). ANOVAs comparing self-concept with population norms showed large significant effects ( $d = 0.77$  to  $1.93$ ) indicating compromised self-concept among youth receiving mental health services. Regression analyses controlling for patient age, sex, family income, and diagnoses of major depressive disorder, generalized social phobia, and generalized anxiety showed that the inpatient setting was a significant predictor of lower global self-worth ( $\beta = -.26$ ;  $p = .035$ ). **Conclusions:** Compared to outpatients, inpatients generally reported lower self-concept, but differences were significant only for global self-worth. Future research replicating this finding and assessing its clinical significance is encouraged.

**Key Words:** *adolescence, child, psychiatric hospitalization, self-esteem, self-worth*

## Résumé

**Objectif:** Cette étude comparait les niveaux du concept de soi chez des adolescents recevant présentement des services de santé mentale pour patients hospitalisés par opposition aux services ambulatoires. **Méthode:** Quarante-sept adolescents ont été recrutés au programme de santé mentale pour enfants et adolescents de l'hôpital pour enfants McMaster. Le concept de soi était mesuré à l'aide du Self-Perception Profile for Children and Adolescents. **Résultats:** L'âge moyen était 14,5 ans et la plupart des participants étaient de sexe féminin (70,2 %). Les analyses de variance comparant le concept de soi aux normes de la population ont montré de larges effets significatifs ( $d = 0,77$  à  $1,93$ ) ce qui indiquait un concept de soi compromis chez les adolescents recevant des services de santé mentale. Les analyses de régression contrôlant l'âge, le sexe, le revenu familial du patient ainsi que les diagnostics de trouble dépressif majeur, de phobie sociale généralisée, et d'anxiété généralisée indiquaient que le contexte d'hospitalisation était un prédicteur significatif d'un concept de soi général plus faible ( $\beta = -0,26$ ;  $p = 0,035$ ). **Conclusions:** Comparativement aux patients ambulatoires, les patients hospitalisés déclaraient généralement un concept de soi plus faible, mais les différences n'étaient significatives que pour le concept de soi général. Une future recherche qui reproduirait ces résultats et en évaluerait la signification clinique est encouragée.

**Mots clés:** *adolescence, enfant, hospitalisation psychiatrique, estime de soi, confiance en soi*

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Self-concept is an important aspect of child and adolescent psychology (Orth, Robins, & Widaman, 2012). While comparisons between youth with and without psychiatric disorder have shown the former report lower self-concept (Guillon, Crocq, & Bailey, 2003), there is no information on the self-concept of youth who are currently receiving mental health services.

In the past decade, psychiatric-related emergency department visits and hospitalizations increased by 33% and 54%, respectively (Gandhi et al., 2016). Examining potential differences in self-concept within mental health settings, particularly between youth inpatients and outpatients may provide useful information offering self-concept as an intervention target to improve mental health. Recent evidence suggests that self-concept is a modifiable trait that, when compromised, precedes the onset or recurrence of psychiatric disorder (Ferro & Boyle, 2014; Talbot, Harris, & French, 2009). Furthermore, meta-analytic findings show strong treatment effects for improving self-concept (Haney & Durlak, 1998; O'Mara, Marsh, Craven, & Debus, 2006). The flexibility in the delivery and target of these interventions allow them to be incorporated into youth psychiatric care (Emler, 2001). This exploratory study examined potential differences in self-concept among youth with psychiatric disorder currently receiving inpatient versus outpatient psychiatric services. It was hypothesized that receiving inpatient services would be associated with lower self-concept.

## Methods

### Sample and Procedure

Forty-seven youth aged 8-17 years receiving inpatient or outpatient services were recruited from the Child & Youth Mental Health Program (CYMHP) at McMaster Children's Hospital. To be eligible for the study, youth must have screened positive for one of the following disorders: generalized/separation anxiety, major depressive, attention deficit hyperactivity, conduct, or oppositional defiant. In addition, youth must have had a parent who was their primary caregiver at least three months prior to recruitment. Youth referred to CYMHP outpatient services were invited to sign consent to be contacted for research studies. Research staff reviewed this roster to identify age-eligible youth and contacted families via telephone to invite participation. Parents and youth who verbally agreed to participate were then screened by staff using the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID) to determine if they met diagnostic criteria (Sheehan et al., 2010). Inpatients were recruited by research staff who approached them and introduced the study during scheduled treatment breaks. Youth who were interested in participating provided research staff written consent to contact their parents about the study and completed the MINI-KID via telephone. After confirming eligibility, staff scheduled

in-person interviews at the research office (outpatients) and McMaster Children's Hospital (inpatients) where youth and parents provided written consent. Approval was obtained from the Hamilton Integrated Research Ethics Board.

### Measures

Self-concept was measured using the youth-reported Self-Perception Profile for Children (SPPC) and Adolescents (SPPA) (Harter, 2012b; Harter, 2012a). The 36-item SPPC (8-13 year olds) is designed to evaluate child perception of his/her competence across six domains: Scholastic Competence, Social Competence, Athletic Competence, Physical Appearance, Behavioural Conduct, and Global Self-Worth (Harter, 2012b). Similarly, the 45-item SPPA is designed to evaluate self-perception for adolescents aged 14-17 years old across all six categories of the SPPC and three additional domains: Close Friendship, Romantic Appeal, and Job Competence. For both measures, questions contain one positive and one negative description of a specific trait, and youth select which description is the most like them and choose whether the description is "Really true for me" or "Sort of true for me" (Harter, 2012b; Harter, 2012a). Domain scores are computed as the average item score, with higher scores signifying better self-concept. The six domains common to both measures were analyzed. Previous work confirms that the SPPC and SPPA have strong psychometric properties (Ferro & Tang, 2017; Harter, 2012a; Harter, 2012b).

### Analysis

Inpatients and outpatients were compared across sociodemographic and psychiatric characteristics using  $\chi^2$  and t-tests. Because the SPPC has six items per domain and the SPPA has five, z-scores were computed to ensure valid comparisons. Study data were compared to normative data using analysis of variance and post hoc Scheffé tests. Effect sizes were computed as standardized mean differences (Cohen's d). Comparisons of self-concept were made using t-tests, then using hierarchical multiple regression, adjusting for the effects of participant age, sex, family income, and psychiatric diagnosis. Data were analyzed using IBM SPSS® v21.

## Results

There were 21 inpatients and 26 outpatients (Table 1). The majority of study participants were female (70.2%) with a mean age of 14.5 (SD 2.2), and had at least one previous consultation about their mental health (74.5%). Most parents were in a partnered relationship (66.0%) and had completed post-secondary education (70.2%).

Compared to outpatients, inpatients were more likely to have major depressive disorder (100.0% vs. 57.7%;  $p=.001$ ), generalized social phobia (70.0% vs. 38.5%;  $p=.034$ ), and generalized anxiety disorder (80.0% vs. 42.3%;  $p=.010$ ).

**Table 1. Sample characteristics**

Variable	Level	Outpatient	Inpatient	$\chi^2 / t$ (p-value)
Gender	Male	10 (38.5%)	4 (19.0%)	2.09 (.148)
	Female	16 (61.5%)	17 (81.0%)	
Mean Age	Years	13.6 (2.3)	15.6 (1.4)	-3.99 (.001)
Parent's Marital Status	Married	16 (61.5%)	8 (38.1%)	4.81 (.440)
	Common-law	2 (7.7%)	5 (23.8%)	
	Widowed	--	1 (4.8%)	
	Divorced	4 (15.4%)	4 (19.0%)	
	Separated	2 (7.7%)	1 (4.8%)	
	Never Married	2 (7.7%)	2 (9.5%)	
	Parents' Education	Some high school	1 (3.8%)	
Completed high school	3 (11.5%)	7 (33.3%)		
Completed technical training	2 (7.7%)	2 (9.5%)		
Completed college/university	15 (57.7%)	6 (28.6%)		
Completed graduate school	5 (19.2%)	3 (14.3%)		
Family Income	< \$30K	4 (15.4%)	5 (23.8%)	18.77 (.065)
	\$30K-\$59,999	4 (15.4%)	5 (23.8%)	
	\$60K-\$89,999	4 (15.4%)	6 (28.6%)	
	\$90K-\$119,999	5 (19.2%)	4 (19.0%)	
	\$120K-\$149,999	4 (15.4%)	--	
	\$150K-\$164,999	2 (7.7%)	--	
	>\$165K	3 (11.5%)	1 (4.8%)	
Health Professional Consultation	None	7 (30.8%)	5 (23.8%)	0.14 (.709)
Psychiatrist	Psychiatrist	13 (65.0%)	14 (87.5%)	2.40 (.121)
	Family Doctor	16 (80.0%)	10 (62.5%)	1.36 (.244)
	Psychologist	12 (60.0%)	7 (43.8%)	0.94 (.332)
	Nurse	4 (20.0%)	10 (62.5%)	6.76 (.009)
	Social Worker, Counsellor	16 (80.0%)	14 (87.5%)	0.36 (.549)
	Others	13 (65.0%)	3 (18.8%)	1.17 (.483)

All inpatients had major depressive disorder, indicating that the vast majority of inpatients had multiple comorbidities (Figure 1).

Self-concept was found to be significantly lower among inpatients compared to normative data for all domains. In contrast, outpatients were found to have similar self-concept with norms for scholastic competence and behaviour conduct. Effect sizes were large (Table 2).

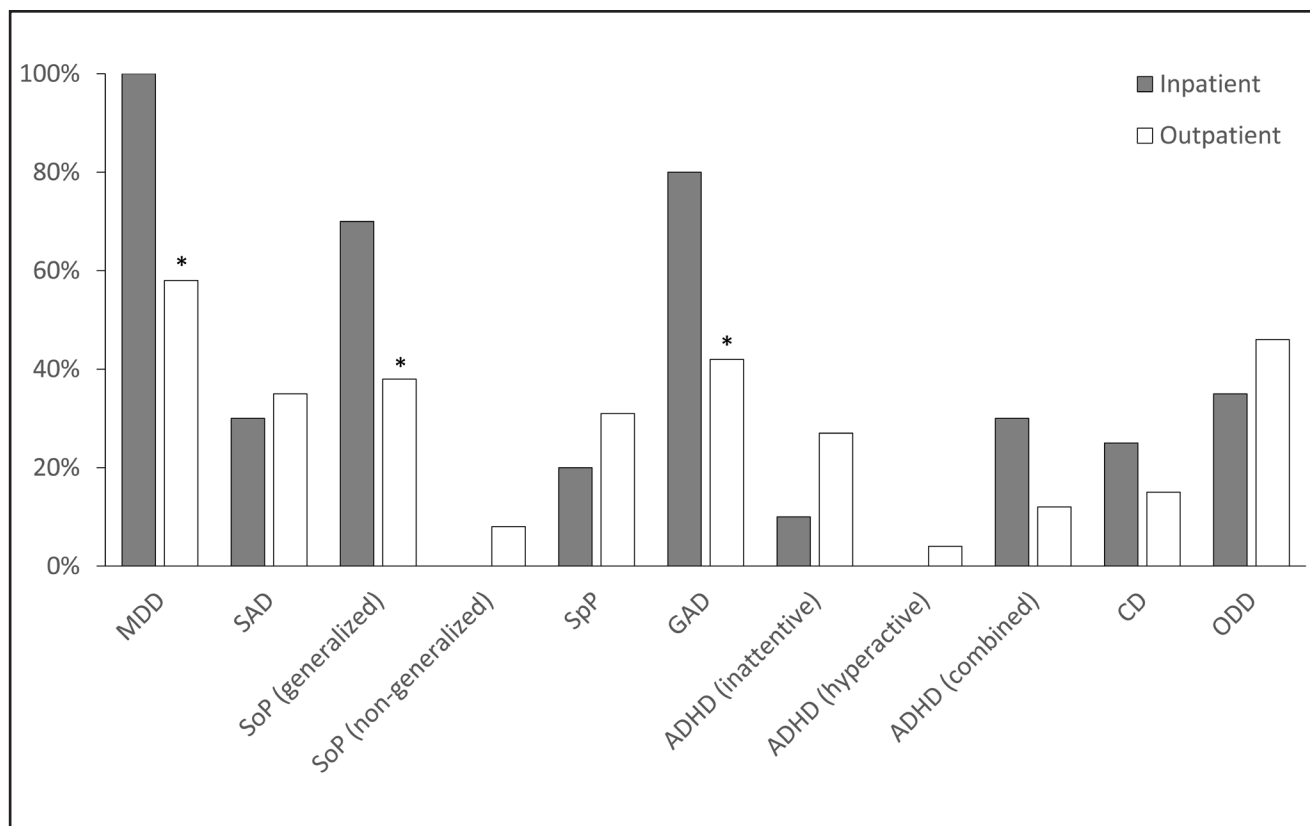
Unadjusted analyses showed that scholastic competence (-.22 vs. .18;  $d=.40$ ;  $p=.174$ ), social competence (-.22 vs. .18;  $d=.41$ ;  $p=.170$ ), athletic competence (-.06 vs. .04;  $d=.10$ ;  $p=.735$ ), physical appearance (-.22 vs. .17;  $d=.40$ ;  $p=.190$ ), and behaviour conduct (-.26 vs. .21;  $d=.48$ ;  $p=.110$ ) did not differ between inpatients and outpatients, although inpatient

scores were lower in all categories. Global self-worth (-.39 vs. .32;  $d=.80$ ;  $p=.009$ ) was significantly lower among inpatients. Adjusting for patient age, sex, family income, and diagnosis of major depressive disorder, generalized social phobia, and generalized anxiety disorder, receiving inpatient services predicted lower global self-worth ( $\beta=-.26$ ;  $p=.035$ , Table 3).

## Discussion

In this exploratory study, self-concept, particularly global self-worth, was significantly compromised among inpatients compared to outpatients. Feelings of self-worth, the evaluative perception of how much one likes oneself

**Figure 1. Psychiatric Diagnoses for Inpatients and Outpatients. Psychiatric disorders were classified according to the MINI-KID.**



\*p<.05

Domain	Inpatient (n=20)	Outpatient (n=16)	Norms (n=177)	F (p-value)	d
Scholastic <sup>a</sup>	2.06 (0.68)	2.36 (0.79)	2.78 (0.74)	10.09 (<.0001)	0.80
Social <sup>b</sup>	2.00 (0.64)	2.28 (0.80)	2.93 (0.64)	23.34 (<.0001)	1.24
Athletic <sup>b</sup>	1.86 (0.68)	2.08 (1.11)	2.70 (0.72)	14.85 (<.0001)	1.00
Physical appearance <sup>b</sup>	1.51 (0.84)	2.07 (0.93)	2.68 (0.66)	28.60 (<.0001)	1.26
Behaviour <sup>a</sup>	2.21 (0.69)	2.53 (0.83)	2.80 (0.55)	9.98 (<.0001)	0.77
Global self-worth <sup>c</sup>	1.45 (0.53)	2.13 (0.87)	2.90 (0.58)	60.06 (<.0001)	1.93

Comparisons were made among patients who completed the SPPA (14-16 years). Patients who completed the SPPC (8-13 years) were too few in number to make meaningful comparisons (1 inpatient, 10 outpatients).

<sup>a</sup>Inpatient < norms  
<sup>b</sup>Inpatient & outpatient < norms  
<sup>c</sup>Inpatient < outpatient < norms

as a person (akin to the notion of self-esteem), may be

**Table 3. Adjusted comparisons of self-concept**

Domain	B (SE)	$\beta$	$\Delta R^2$	Total R <sup>2</sup>
Scholastic	-0.38 (0.29)	-.19	.03	.52
Social	-0.19 (0.33)	-.10	.01	.38
Athletic	-0.32 (0.29)	-.16	.02	.49
Physical Appearance	-0.18 (0.33)	-.09	.01	.38
Behaviour	-0.53 (0.33)	-.27	.04	.33
Global Self-Worth	-0.51 (0.18)*	-.26	.04	.54

Self-concept was compared using multiple regression while controlling for age, sex, family income, and diagnoses of major depressive disorder, generalized social phobia, and generalized anxiety. Outpatients were set as the reference category. Thus, estimates represent the reduction in self-concept (dependent variable) associated with receiving inpatient psychiatric services.  $\Delta R^2$  represents the explained variance attributable to psychiatric setting.

\* $p < .05$

compromised because inpatients often minimize their own positive attributes and strengths, making it difficult to accept positive feedback (Klose & Tinius, 1992). The association with self-worth may be attributable to a generalization of Beck's cognitive theory of depression whereby individuals with psychiatric disorder, particularly internalizing problems, have dysfunctional negative views of themselves, their life experience, and their future (Beck, 1967). It is plausible that youth receiving inpatient services represent those with more severe psychiatric disorder and thus show more compromised self-concept compared to outpatients. A similar argument is conceivable for differences between this sample and population norms. The absence of association with other aspects of self-concept may be attributable to lack of statistical power; small differences in domain-specific self-concept were not detectable, but instead were evident in the more generic domain of global self-worth and in the very large differences with population norms. It could also be the case that the lack of association is a true finding; these domains are not affected by psychiatric hospitalization. However, these ideas are speculative and further research is required.

Findings indicate that youth receiving psychiatric services have lower self-concept compared to population norms. When controlling for sociodemographic and diagnostic factors, the type of psychiatric settings remained a robust predictor of global self-concept adding a small, but significant amount of variance to the model. Future studies should investigate potential precursors and consequences of low self-worth, helping enhance inpatient services to accommodate for this decline in self-concept. Empirical findings have shown that interventions targeting youth self-esteem are effective, with effect sizes ranging from medium to large (Haney & Durlak, 1998; O'Mara et al., 2006). Because self-esteem interventions are school and cognitive-behavioural therapy-based (Emler, 2001), they can be adapted for use

in the psychiatric inpatient setting, including day hospitals and step-down units.

This study has three relevant limitations. First, the study may not have been adequately powered to detect significant differences in self-concept. Similarly, while we adjusted for patient age, sex, family income, and psychiatric diagnoses, other factors, such as illness severity, number of admissions, family relationships, and comorbid physical illnesses could not be modeled. Doing so could have resulted in unstable standard errors due to the small sample size (Vittinghoff, Glidden, Shiboski, & McCulloch, 2012). Consideration of such factors is pertinent given that lower self-concept is more pronounced in youth with physical illnesses (Ferro & Boyle, 2013). Second, patients were not randomly selected. The extent to which estimates were influenced by potential selection bias is unknown. Third, the temporality of reported associations could not be examined. Thus, inferences drawn from this study should be made with caution.

In summary, global self-worth is significantly more compromised among youth receiving inpatient compared to outpatient psychiatric services. Replication of these preliminary findings from this exploratory study is encouraged to better understand temporal relationships underlying self-concept and psychiatric disorder, and inform clinical practice.

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## References

- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York, NY: Harper & Row.
- Bracken, B. A. (Ed.) (1996). *Handbook of self-concept*. New York, NY: John Wiley & Sons, Inc.
- Emler, N. (2001). *Self-esteem: The costs and causes of low self-worth*. New York, NY: Joseph Roundtree Foundation.
- Ferro, M. A., & Boyle, M. H. (2014). The impact of chronic physical illness, maternal depressive symptoms, family functioning, and self-esteem on symptoms of anxiety and depression in children. *Journal of Abnormal Child Psychology, 43*(1), 177-187.
- Ferro, M. A., & Boyle, M. H. (2013). Self-concept among children and adolescents with a chronic illness: A meta-analytic review. *Health Psychology, 32*(8), 839-848.
- Ferro, M. A., & Tang, J. (2017). Psychometric properties of the Self-Perception Profile for Children in children with chronic physical conditions. *Journal of the Canadian Academy of Child and Adolescent Psychiatry, 26*(2), 119-124.
- Gandhi, S., Chiu, M., Lam, K., Cairney, J. C., Guttman, A., & Kurdyak, P. (2016). Mental health service use among children and youth in Ontario: Population-based trends over time. *Canadian Journal of Psychiatry, 61*(2), 119-124.
- Guillon, M. S., Crocq, M.-A., & Bailey, P. E. (2003). The relationship between self-esteem and psychiatric disorders in adolescents. *European Psychiatry, 18*(2), 59-62.
- Haney, P., & Durlak, J. A. (1998). Changing self-esteem in children and adolescents: A meta-analytic review. *Journal of Clinical Child Psychology, 27*(4), 423-433.
- Harter, S. (2012a). *Self-Perception Profile for Adolescents: Manual and questionnaires*. Denver, CO: University of Denver.
- Harter, S. (2012b). *Self-Perception Profile for Children: Manual and questionnaires (Grades 3-8)*. Denver, CO: University of Denver.
- Klose, P., & Tinius, T. (1992). Confidence builders: A self-esteem group at an inpatient psychiatric hospital. *Journal of Psychosocial Nursing and Mental Health Services, 30*(7), 5-9.
- Leary, M. R., & Tangney, J. P. (2013). *Handbook of self and identity* (2nd ed.). New York, NY: Guilford Press.
- Mruk, C. J. (2006). *Self-esteem research, theory, and practice: Toward a positive psychology of self-esteem* (3rd ed.). New York, NY: Springer.
- O'Mara, A. J., Marsh, H. W., Craven, R. G., & Debus, R. L. (2006). Do self-concept interventions make a difference? A synergistic blend of construct validation and meta-analysis. *Educational Psychologist, 41*(3), 181-206.
- Orth, U., Robins, R. W., & Widaman, K. F. (2012). Life-span development of self-esteem and its effects on important life outcomes. *Journal of Personality and Social Psychology, 102*(6), 1271-1288.
- Sheehan, D. V., Sheehan, K. H., Shytle, R. D., Janavs, J., Bannon, Y., Rogers, J. E.,...Wilkinson, B. (2010). Reliability and validity of the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID). *Journal of Clinical Psychiatry, 71*(3), 313-326.
- Sowislo, J. F., & Orth, U. (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychological Bulletin, 139*(1), 213-240.
- Talbot, F., Harris, G. E., & French, D. J. (2009). Treatment outcome in psychiatric inpatients: The discriminative value of self-esteem. *International Journal of Psychiatry in Medicine, 39*(3), 227-241.
- Vittinghoff, E., Glidden, D. V., Shiboski, S. C., & McCulloch, C. E. (2012). *Regression Methods in Biostatistics*. Boston, MA: Springer.
- Wigfield, A., & Eccles, J. S. (1994). Children's competence beliefs, achievement values, and general self-esteem change across elementary and middle school. *Journal of Early Adolescence, 14*(2), 107-138.