

A Measurement Model of Self-Injurious Behaviors among Foster Care Adolescents

Jackson de Carvalho, PhD

Associate Professor
Prairie View A & M University
Prairie View, Texas 77446
United States of America

Darron Garner, PhD

Adjunct Assistant Professor
Brailsford College of Arts and Sciences
Prairie View A&M University
Prairie View, Texas
United States of America

Abstract

This quasi-experimental research study investigated relationships between mental health issues, substance abuse and self-injurious behaviors in a sample of foster care adolescents with an age range of 03–17 (n = 92) in Texas. The study tested the suitability of the DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure as a useful tool to enhance clinical decision-making. Logistic regression analysis and multivariate models constructed separately were employed. Nearly all mental health issues related variables were significantly related to self-injurious behaviors. No significant associations were established for substance abuse and self-injurious behaviors. Two variables, however, emerged with highest structure coefficient and as main predictors of self-injurious behaviors. Results have implications for mental health services and self-injurious prevention programs for adolescents. Measures of emotional mental health issues, drug abuse and self-injurious behaviors as a part of adolescent mental health assessments might be useful for field work, intervention, and program evaluation efforts.

Keywords: Foster care, youth, parent, self-injurious, predictors and logistic regression

1. Introduction

On any given day, more than half a million youth reside in foster care within the United States (Bruskas, 2008; Child Welfare League of America, 2006). Prior to placement, many of these youths have experienced prolonged and substantiated maltreatment such as abuse and neglect, (Levitt, 2009; Sprang, Clark, Kaak, & Brenzel, 2004), which may predispose them to various mental health issues that warrant mental health care (Landsverk, Burns, Stambaugh, & Reutz, 2009). These mental health needs, which far exceed those of their same aged counterparts not residing in foster care, however, may not have been adequately addressed by our child welfare or mental health system (Levitt, 2009). Additionally, research studies suggest that few foster parents receive appropriate and sufficient training to deal with the specific emotional and behavioral problems of the children placed in their care, resulting in lowered foster parent satisfaction levels and multiple failed placements (Barth, Green, Webb, Wall, Gibbons, & Craig, 2008; Chamberlain, Price, Reid, & Landsverk, 2008; Redding, Fried, & Britner, 2000).

This research study focused on the determinants of *Self-injurious behaviors* among foster care youth in north Texas. *Self-injurious* related behaviors among adolescents are a serious health concern in the United State as research on self-injury amongst adolescents in a typical high school setting estimates that 13 to 24% of students report engaging in self-injury (CDC-Centers for Disease Control and Prevention, 2015). The CDC (2015) further report that *Self-injurious behaviors* is the second leading cause of death among adolescents aged 15–24 in the United States, which accounts for approximately 15 % of all deaths annually.

Self-injurious behaviors is also described as attempt suicide or suicidal behavior. Suicide becomes increasingly prevalent with adolescent and rates have surged to the highest levels in the last 30 years. Self-injurious behaviors have been reported as the second leading cause of death among adolescents aged 15–24 in the United States, accounting for 12.2 % of all deaths annually (CDC-Centers for Disease Control and prevention 2015).

The relevant literature shows that varying definitions and interchangeable terminology such as, parasuicidal behavior, self-wounding, self-destructive behavior, and self-mutilation have been used to define the currently accepted term, self-injurious behavior (SIB). It is noteworthy the evolution in terminology, as many of these earlier terms have been dismissed as they vaguely or inaccurately describe this phenomena in addition to incorrectly including acts that differ in etiology and function. Walsh (2006) asserts that the term 'self-mutilation' has been criticized by mental health professionals as it falsely captures the act of self—injury and insinuates a derogatory connotation. In fact, the term 'mutilate' can be defined as, 'to cut up or alter radically so as to make imperfect' and 'to maim, or cripple. Muehlenkamp & Gutierrez (2004) explain that the majority of self-injurers inflict only a modest amount of physical damage on their body, which leaves little, if any, long term scarring.

The current literature shows that one specific mental health concern of youth in foster care is self-injurious behaviors. This notion is based on research findings, which identify common environmental and individual risk factors amongst both individuals who engage in acts of self-injury and youth placed in foster care (Claes, Vandereycken & Vertommen, 2004; Gratz, 2006; Strong, 1998; Suyemoto & MacDonald, 1995, van der Kolk, Perry & Herman, 1991; van der Kolk, McFarlane & Weisaeth, 1996; & Walsh, 2006). Although a paucity of research exists on the exact prevalence rates of self-injurious behavior amongst the foster care population, studies indicating the need for foster parents to receive increased training on the potential various mental health issues of youth in care is overwhelming.

The present study included latent variables and respective indicators measured by questions suggested by the Child Welfare League of America (CWLA), and shown to have high validity and reliability. In addition, the selected variables for the present study were determined through empirical findings of the relevant theory applicability to the data available. Thus, the regression model designed to examine the relationship of factors that impact self injurious behaviors of foster care youth are represented by latent variables and their respective constructs (CWLA, 2007; De Carvalho & Schumacker, 2012; Gratz, 2006). The independent variables are: *Depression, Anxiety, Mania, Substance Abuse, Sleep Problem, Psychosis, Somatoform Disorders, Anger and Irritability*.

Subsequently, the study aimed to better understand the processes by which the independent variables may act as mechanisms of clinical improvement by delineating the influences of substance abuse and mental health factors upon self-injurious behaviors outcomes (Muehlenkamp & Gutierrez, 2007). Twenty percent of children and adolescents around the world endure mental health problems, but most are underserved or receive services not appropriate for their conditions (Trepal & Wester, 2007). Perhaps most in need of quality services are the half-a-million-plus children and adolescents in foster care (CWLA, 2007; U.S. department of Health and Human Services, 2014).

The study tested the suitability of the self-injurious model for the system of care targeting the identification of factors to be used in the prevention of negative outcomes for foster care juveniles. This was done by testing the following research question:

- RQ1. Is there a relationship between mental health factors (*Depression, Anxiety, Mania, Sleep Problem, Psychosis, Somatoform Disorders, Anger and Irritability*) and Self-injurious behavior of foster care youth?
- RQ2. Is there a relationship between substance abuse and Self-injurious behavior of foster care youth?
- RQ3. Which are the main factors responsible for self-injurious behaviors?

The statistical hypotheses for the study were:

Hypothesis 1: Higher levels of substance abuse are associated with higher levels of self-injurious behaviors

Hypothesis 2: Higher levels of mental health issues are associated with higher levels of self-injurious behaviors

Hypothesis 3: Higher levels of mental health issues are associated with higher levels of substance abuse

2. Method

The present study used a secondary data analysis. The data for this study were drawn from surveys administered by the Mental Health Services Program (MHSP) at Garner & Associates. The MHSP works in collaboration with the State of Texas System of Care (STSC) Program to plan and evaluate foster care services for thousands of wards of the state across Texas. The surveys were administered from November 2016 to March 2017, and contained no identifiable personal information from any of the participants. The administrators of the MHSP have a special interest in examining the causes of adolescents' self-injurious behaviors in contexts based on the assumption that families, neighborhoods and schools play important roles in the choices adolescents make leading to high risk or thriving experiences.

This quantitative quase-experimental research study was conducted through the Mental Health Services Program (MHSP) at Garner & Associates. The MHSP works in collaboration with the State of Texas System of Care (STSC) Program to plan and evaluate foster care services for thousands of wards of the state across Texas. Wards are referred for services by the private foster care provider when there is a concern about placement stability. The TSC program provides strengths based clinical services to youth and family members across settings that include the family's home, residential treatment centers, and foster homes statewide.

The sample for this research study was comprised of $n = 92$ randomly selected foster care youth between 4-17 years of age. The measures were developed by the Garner & Associates research team to incorporate an extensive range of areas, which included: adolescents' emotional, mental, and physical health status; measures of adolescents' diverse context such as family relationship, friendships, and adolescents' perception of school and neighborhood. Data for this study contained no identifiable personal information from any of the respondents. The minimum ratio of valid cases to independent variables for multiple regression is 5 to 1. With 92 valid cases and 14 independent variables, the ratio for this analysis is over 5 to 1, which meet and exceeds the statistical power and effect size requirement to preclude error I and error II (Rubin & Babbie, 2017).

3. Instrumentation

Study participants were given a questionnaire packet including the DSM-5 Parent/Guardian-Rated Level 1 Cross-Cutting Symptom Measure survey and relevant demographic items. The measure consists of 25 questions that assess 12 psychiatric domains, including depression, anger, irritability, mania, anxiety, somatic symptoms, inattention, suicidal ideation/attempt, psychosis, sleep disturbance, repetitive thoughts and behaviors, and substance use. Each item asks the parent or guardian to rate how much (or how often) his or her child has been bothered by the specific symptom during the past 2 weeks. The measure was found to be clinically useful and had good test-retest reliability in the DSM-5 Field Trials in pediatric clinical samples across the United States. The DSM-5 Parent/Guardian-Rated Level 1 Cross-Cutting Symptom Measure can be completed in less than 30 minutes, yet its design affords a comprehensive snapshot of the youth's functioning across several biopsychosocial contexts. Recent research suggests that this instrument is a viable choice for the purposes of assessing mental health domains, with evidence for its high scores of test-retest validity, inter-rater reliability, and predictive validity in particular, having recently been reported (American Psychiatric Association, 2013). The study Cronbach's Alpha (α) reliability test for the DSM-5 Parent/Guardian-Rated Level 1 Cross-Cutting Symptom Measure yielded a coefficient of .883.

4. Data analysis

The present study was designed to identify the main predicting factors that influence adolescent self-injurious behaviors from the perspective of foster care parents. Thus, logistic regression analysis and other statistical tests were performed to analyze the data using the Statistical Package for the Social Sciences (SPSS) data analysis software. Scores on every item and domain of the DSM-5 Parent/Guardian-Rated Level 1 Cross-Cutting Symptom Measure were averaged for each respondent and then across the sample. Nineteen of the 25 items on the measure were each rated on a 5-point scale. The suicidal ideation, suicide attempt, and substance abuse items were each rated on a "Yes, No, or Don't Know" scale. The DSM-5 mental health symptom measures were used as a resource to provide more detailed information on the symptoms associated with some of the self-injurious domains. Additionally, Binary logistic regression analyses were run for each set of variables hypothesized to test whether a significant relationship existed between *mental health* factors (and its subscales) and substance abuse of at risk self-injurious youth in foster care (American Psychiatric Association, 2013; Rubin & Babbie, 2017).

In an effort to avoid Type I or Type II error, binary logistic regression design requires that the dependent variable should be dichotomous in nature (e.g., presence vs. absent) and that the independent variables be metric or dichotomous. Furthermore, Binary logistic regressions by design, overcome many of the restrictive assumptions of linear regressions. It does not require a linear relationship between the dependent and independent variables since it can handle all sorts of relationships, as it applies a non-linear log transformation to the predicted odds ratio. Additionally, independent variables do not need to be multivariate normal – although a more stable solution favors multivariate normality and the error terms do not need to be multivariate normally distributed. Furthermore, homoscedasticity is not required. Lastly, it can handle ordinal and nominal data as independent variables. In other words, the independent variables do not need to be metric (interval or ratio scaled), which makes it very suitable for the analysis of the present study data (Garson, 2009; Tabachnick & Fidell, 2012).

Subsequently, binary logistic regression was used to estimate the probability that self-injurious behavior characteristic is present, as indicated by the values of explanatory variables, in this case a single categorical variable; $\pi = Pr(Y = 1|X = x)$. Thus, binary logistic regression analysis was used to identify the subset of independent variables with the strongest correlations to the dependent variable and test the study research question (Kirkpatrick & Feeney, 2007; Rubin & Babbie, 2017). The standard alpha of 0.05 was used to determine if there is a significant relationship between the independent variables, *mental health symptoms*, *substance abuse* and the dependent variable, *Self-Injurious Behaviors*.

5. Results

Research findings will be divided into two sections. The first section of the study will focus on the descriptive statistics of the sample included in this study. The second section of the study will discuss the inferential analysis to the results of the current study using multiple correlations, and logistic regression. The descriptive statistics reflecting the demographic characteristics of the respondents are tabled separately and include frequency, percentages and mean. These descriptive statistics present noteworthy characteristics and provide opportunities to make important comparison of the measured variables. The sample consists of 92 adolescents who were surveyed in 2016. The respondents gender distribution was comprised of 54 male adolescents (56.8 %) and 38 female adolescents (41.3%). The ethnicity of the respondents was formed of 48 (52.2%) African Americans, 21 (22.8%) White and 23 (24.2%) were Latino/Latinas. The top three age groups in the study were the 9-year-old with a frequency of 16 (16.8%), the 10-year-old with a frequency of 14 (14.7%) and the 7-year-old comprised of 7 (7.8%) of the respondents. The mean age of the study participants was 9.5 years old (Table 1.).

Table 1. Descriptive Statistics on Socio-Demographic Characteristics

<i>GENDER</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	54	56.8	58.7	58.7
	female	38	40.0	41.3	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

<i>ETHNICITY</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	black	48	50.5	52.2	52.2
	white	21	22.1	22.8	75.0
	latino	23	24.2	25.0	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

<i>AGE</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	1.1	1.1	1.1
	4	6	6.3	6.5	7.6
	5	4	4.2	4.3	12.0
	6	7	7.4	7.6	19.6
	7	8	8.4	8.7	28.3
	8	10	10.5	10.9	39.1
	9	16	16.8	17.4	56.5
	10	14	14.7	15.2	71.7
	11	5	5.3	5.4	77.2
	12	3	3.2	3.3	80.4
	13	8	8.4	8.7	89.1
	14	4	4.2	4.3	93.5
	15	3	3.2	3.3	96.7
	16	2	2.1	2.2	98.9
	17	1	1.1	1.1	100.0
	Total	92	96.8	100.0	
	Missing	System	3	3.2	
Total		95	100.0		

The second section of the results discusses answers to the research question. A set of independent variables reflecting mental health issues and substance abuse was used to ascertain if they were significant predictors of retention. Firstly, a Pearson correlation was run to test the association between mental health factors and their self-injurious behavior. The bivariate relationship between the dependent variable and most of the predictor variables was not significant in relation to Self-injurious behavior however, two variables were found to be significant. They were: *Somatoform disorders*, and *Psychosis* as shown in Table 2.

Table 2. Inter-Correlations

		<i>Somatic symptoms</i>	<i>Depression</i>	<i>Mania</i>	<i>Anxiety</i>	<i>Psychosis</i>	<i>Repetitive thought and behavior</i>	<i>Substance use</i>	<i>Self injury</i>
<i>Somatoform disorders</i>	Pearson Correlation	1	.411**	.292**	.335**	.572**	.411**	.073	.203**
	Sig. (2-tailed)		.000	.005	.001	.000	.000	.487	.052
	N	92	92	92	92	92	92	92	92
<i>Depression</i>	Pearson Correlation	.411**	1	.522**	.490**	.368**	.538**	.075	.050
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.476	.638
	N	92	92	92	92	92	92	92	92
<i>Mania</i>	Pearson Correlation	.292**	.522**	1	.555**	.347**	.464**	.92	-.054
	Sig. (2-tailed)	.005	.000		.000	.001	.000	.067	.612
	N	92	92	92	92	92	92	92	92
<i>Anxiety</i>	Pearson Correlation	.335**	.490**	.555**	1	.352**	.439**	.157	.035
	Sig. (2-tailed)	.001	.000	.000		.001	.000	.135	.741
	N	92	92	92	92	92	92	92	92
<i>Psychosis</i>	Pearson Correlation	.572**	.368**	.347**	.352**	1	.488**	.279**	.276**
	Sig. (2-tailed)	.000	.000	.001	.001		.000	.007	.008
	N	92	92	92	92	92	92	92	92
<i>Repetitive thought and behavior</i>	Pearson Correlation	.411**	.538**	.464**	.439**	.488**	1	.224*	.012
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.032	.907
	N	92	92	92	92	92	92	92	92
<i>Substance use</i>	Pearson Correlation	.073	.075	.92	.157	.279**	.224*	1	-.015
	Sig. (2-tailed)	.487	.476	.067	.135	.007	.032		.891
	N	92	92	92	92	92	92	92	92
<i>Self-Injury</i>	Pearson Correlation		.050	-.054	.035	.276**	.012	-.015	1
	Sig. (2-tailed)	.203**		.612	.741	.008	.907	.891	
	N	92	92	92	92	92	92	92	92

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Furthermore, logistic regression analysis of scores on binary Self-injurious behavior group (Yes/No) was conducted to test a set of research questions:

- RQ1. Is there a relationship between mental health factors (*somatoform disorders, depression, mania, psychosis, repetitive thought and behavior*) and Self-injurious behavior of foster care youth?
- RQ2. Is there a relationship between substance abuse and Self-injurious behavior of foster care youth?
- RQ3. Which are the main contextual factors responsible for self-injurious behaviors?

Results shown in the Classification Table indicate the clear majority (81=No/11=Yes) of the study participants do not show propensity for self-injurious behavior with 88% Classification accuracy (Table 3). It is note wordy, however, that is according to the parent's perception and report.

Observed		Predicted Behavior		Percentage Correct
		No	Yes	
<i>Self-injurious Behavior</i>	No	81	0	100.0
	Yes	11	0	.0
Overall Percentage				88.0

The variables in the equation, Table 4. shows the logistic coefficient (B) as estimate for the effect associated with intercept-only model, which is (odds) = -1.997. In other words, it represents the change in the natural logarithm of the odds ratio" (Schumacker, Lomax, 2004). The Exponential B ($\text{Exp}(B) = .136$) represents the odds ratios or exponential values of the regression coefficient for constant. Since the $\text{Exp}(B)$ is greater than one, the exponential coefficient of the constant is transformed into negative, implies that the overall model was statistically reliable in predicting self-injurious behavior. The Wald statistics confirm that the ability of the model to predict the difference between the presence of self-injury propensity versus absence of self-injury propensity were statistically significant at the $p < .05$ level of significance.

Table 4. Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-1.997	.321	38.606	1	.000	.136

All independent variables in this analysis had standard errors smaller than 2.0. The S.E. or Standard Error is an index of the accuracy of the logistic regression equation, and the equivalent of the standard deviation. When the standard errors of the estimate are smaller the prediction tends to be more accurate as it indicates a better model fit. A sample size resulting in a power of .80 can use the Wald statistic to test whether a coefficient equal zero as Wald statistic is the square of the ratio of the coefficient to its standard error. The significance of the coefficients is determined by a "Wald Test." Thus, the Wald statistic (chi-square distribution) was used to test whether contextual factors were a significant predictor of the outcome variable at $p < .05$. The $\text{Exp}(B)$, which is the exponentiation of the coefficients or the odds ratios for the predictors was used to assess the relative odds or odds ratio for the contextual variables in the model (Rubin & Babbie, 2017; SPSS, 2012). Table 6, summarizes the logistic regression results of the contextual variables.

Moreover, Table 5. shows statistical evidence of the presence of a relationship between the dependent variable and the combination of independent variables. The model chi-square is 18.554, which is statistically significant at $p < .001$ showing that the model has predictive capacity. Consequently, the null hypothesis was rejected and the alternative hypothesis predicting a relationship between the independent variables and the dependent variable was accepted. Subsequently, the study first and second research question (RQ1. Is there a relationship between mental health factors and Self-injurious? RQ2. Is there a relationship between substance abuse and Self-injurious behavior?) has been answered.

Table 5. Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	11.421	9	.000
	Block	11.421	9	.000
	Model	11.421	9	.000

The Cox and Snell pseudo R^2 statistic was used to determine if the research study had a good model to explain variation in the dependent. The statistical indices displayed in Table 6. indicated that 11.7 to 22.5 of the variance in the outcome variable was explained by the two independent variables (*Psychosis, Somatoform Disorders*) in the model. Larger pseudo r-square statistics could have explained more of the variation in the dependent variable in the model. The unexplained variance of the depended variable is attributed to variables not included in the model.

Table 6. Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	55.934 ^a	.117	.225

a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.

Table 7. reports the Logistic Regression coefficients of the independent variables and summarizes the logistic regression results of No/Yes Self-injurious behavior groups. The results indicated two variables had significant statistics: *Psychosis* and *Somatoform Disorders*. Predictor variables with lower statistical indices as they related with the dependent variable were excluded for the logistic regression analysis. The variable *Somatoform Disorders* yielded a b of .047, SE = .182, Wald = .042, P < .003. and the Exp(B) was 1.158. Statistical indices indicated this variable does make a contribution to the model as P is less than .05 level of significance. The variable *Substance Abuse* yielded a b of 1.256, SE = .738, Wald = .000, P < 1.000. and the Exp(B) was 3.511. Statistical indices indicated this variable does not make a contribution to the model as P is larger than the acceptable .05 level of significance.

For the variable *Psychosis*, the b was .460, SE = .206, Wald = 4.981, P < .026 and the Exp(B) was 1.584. When the variables, *Psychosis* and *Somatoform Disorder* change from the level of “none” “slight” “mild” “moderate” “severe” there is a 4.6 to 4.7 increase in the probability of a foster care youth becoming self-injurious. In other words, one unit increase in the youth level of psychosis increased the log odds of the dependent variable by approximately 5%. It is noteworthy that none of the standard errors for the b coefficients were smaller than 2.0, which indicated no numerical problems, such as multicollinearity among the independent variables. Logistic analysis results satisfactorily answered the study research questions regarding relationship between the independent variables and *Self-Injurious Behaviors*. Logistic regression results, however did not show a significant relationship between Substance Abuse and Self-injurious behavior as it was hypothesized. Nevertheless, two variables were identified as being significant predictors of self-injurious behavior: *Psychosis* and *Somatoform Disorder*.

Table 6. Logistic regression of predicting factors and binary No/Yes self-injurious groups

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a <i>Somatoform Disorder</i>	.047	.182	.649	1	.003	1.158
<i>Depression</i>	.053	.194	.075	1	.784	1.054
<i>Mania</i>	-.296	.213	1.931	1	.165	.744
<i>Anxiety</i>	.020	.117	.029	1	.864	1.020
<i>Psychosis</i>	.460	.206	4.981	1	.026	1.584
<i>Repetitive thought and behavior</i>	-.138	.144	.914	1	.339	.871
<i>Substance Abuse</i>	1.256	.738	.000	1	1.000	3.511
<i>Constant</i>	-1.761	.990	.000	1	1.000	.000

a. Variable(s) entered on step 1: *Somatoform Disorder*, *Depression*, *Mania*, *Anxiety*, *Psychosis*, *Repetitive thought and behavior*, *Substance Abuse*.

Implications for Prevention, Intervention, and Treatment

A range of responses from prevention to treatment must be adopted to address the myriad of factors related to suicidality among foster care youth. Macgowan (2004) describes a model for interrupting risk processes, and provide some general guidelines for practice. Broad strategies are needed that not only focus on suicidality but also include “a large-scale ecological, environmental, system oriented approach” addressing social problems such as unemployment, school failure, delinquency, mental health stigma, health, and welfare. Two commonly used prevention methods with some success include gatekeeper training and wraparound services.

Prevention

Gatekeeper training program teaches community’s members (not limited to paraprofessionals, clergy, teachers, police, barbers, and workers from community agencies) how to identify suicide risk factors, ideation, behaviors and appropriate referral strategies.

Reviews suggest that gatekeeper training is effective in improving knowledge about the risk factors and intentions to intervene and refer potentially suicidal individuals (Maris, Berma, Silverman, 2000). More studies are needed to determine the efficacy (reduction in suicidality) and unintended negative effects (for instance, normalizing suicide as an option to problems) among some youth. Gatekeeper training programs can avoid making suicidality a normalized behavior by focusing more on self-destructive behavior. This helps to de-stigmatize the conversation of suicidality, especially in communities whereby suicidality is taboo and highly stigmatized.

Intervention and Treatment

Some of the most rigorous research has revealed that wraparound interventions work, and a substantial majority of adolescents can and will recover from anxiety, depression, and psychosis with a combination of wraparound services (intensive case management, cognitive behavioral therapy and medication management). Cognitive Behavioral Therapy (CBT), a form of talk therapy designed to help patients grow their emotional and cognitive control by identifying and managing the triggers and thoughts that lead them to contemplate or undertake self-harm. Wraparound services show promise in reducing suicidality of adolescents (Maimon & Kuhl, 2008). Attitude and behavioral change should be target interventions; especially attitudes and behaviors of concern in the spectrum of self-destructive behaviors. Once the therapeutic relationship has been developed, clinicians can address other targets so as having faith, perspective-taking, problem solving, etc. Furthermore, the universality of struggles and hardships must be discussed; in addition to how things can get better if they don't self-destruct. Foster care youth must learn that emotional pain will not be constantly intense and interminable and that they can have faith that things are going to get better; contrary to the abundance of evidence to suggest that things are never going to get better. It's therapeutic for clinicians to talk about faith, not just hope because hope takes a long time to build, and faith is the fuel for hope.

It is noteworthy that the number of wraparound services providers who take health insurance is shockingly low across the country. Imagine if the number of children dying from brain cancer doubled between 2007 and 2014, while at the same time the number of oncologists and surgeons who accept health insurance shrank? This gap explains why too often young people receive mental health services only after their condition has deteriorated so dramatically that they end up in a hospital emergency room. Keep in mind that during many of the years studied, pre-existing conditions were covered by insurers, and mental illnesses were treated on equal footing with physical afflictions. Who knows what needs may go unmet if the law changes. We need more comprehensive mental health services for young people. But that will not happen until we move this plague out into the open, abandon the stigma that keeps us at a whisper, and begin talking publicly and fully about the prevalence of suicidality, especially in foster care youth. We won't cure what we cannot see. We owe it to the young lives lost to this scourge to abandon our culture of embarrassment, dishonor and guilt and grow a culture of cure. Our national shame is not that too many of our children despair; it is that we are too quiet about it.

We urgently need more research into the causes for this precipitous rise in the number of children who feel life is not worth living. Some experts blame the prevalence of cyber-bullying, and, in that same vein, the feelings of isolation and exclusion unleashed by social media. You'll get no argument from me on that. Teenagers' phones may indeed be smart, but they are rarely kind. Clearly, the surging number of children with mental health needs points to missed diagnoses and failures of care. That sort of information is scarce; so scholars and clinicians must work together to develop that information. Take it from a mental health professional who has witnessed the miracle of recovery from depression and suicidal attempts in many young people over the years, treatment works. Millions of survivors now lead flourishing lives filled with purpose and promise.

We owe it to our kids to create strong and consistent access to effective mental health treatment, and to prioritize the reduction in teen suicide by treating this surge as the national crisis it has become. And let's use a bullhorn to start the conversation.

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