Replication of the Self-Concept and Identity Measure (SCIM) Among a Treatment-Seeking Sample

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Abstract

Identity distress occurs within a variety of psychiatric conditions. Reliable tools for assessing identity-related functioning among clinical populations are greatly needed. The Self- Concept and Identity Measure (SCIM) is a brief self-report scale designed to assess healthy and disturbed identity dimensions. This measure has been validated within normative but not treatment seeking samples. The present study used an *a priori* confirmatory approach to replicate the SCIM's factor structure among disadvantaged women enrolled in treatment for chemical dependence ($N = 216$). The original three-factor structure and item loadings generally replicated within this diagnostically diverse, significantly impaired sample. Higher SCIM scores were also associated with other problems, such as emotion dysregulation and depression. Results support the SCIM's use and scoring with clinical populations.

Keywords

Identity disturbance; Psychopathology; Emotion dysregulation; Substance Use Disorders; Chemical Dependence; Assessment; Factor analysis

A growing body of evidence indicates identity-related distress is both clinically meaningful and associated with diverse psychiatric conditions (e.g., Kaufman, Montgomery & Crowell, 2014; Klimstra & Denissen, 2017; Westen, Betan, & Defife, 2011). Identity dysfunction occurs among those with number of diagnoses (American Psychiatric Association [APA],

2013) including: substance use (Jones, 1992; Rose & Bond, 2008; Talley, Tomko, Littlefield, Trull, & Sher, 2011), mood (Drucker & Greco-Vigorito, 2002; Inder et al., 2008), and eating disorders (Farchaus Stein & Corte, 2007; Verschueren et al., 2017; Wheeler, Adams, & Keating, 2001; Winston, 2005). Furthermore, a proposed reformulation of the personality disorders section of the Diagnostic and Statistical Manual for Mental Disorders (DSM-5; APA, 2013) now includes identity functioning as a key diagnostic feature of every personality disorder (Morey et al., 2011). This alternate approach represents a significant change from previous DSM models, where identity was discussed primarily, and uniquely, as a criterion for borderline personality disorder (BPD). The proposed reformulation is consistent with a growing movement in the field toward dimensional models of psychopathology that aim to reduce excessive comorbidity, identify key maladaptive processes/outcomes that vary in expression and severity, and operationalize diagnoses more precisely (National Institute of Mental Health, 2011; Skodol et al., 2011).

As identity functioning gains greater footing in the clinical science literature and DSM, assessment instruments are needed to effectively identify, track, and promote a greater understanding of such problems. The *Self Concept and Identity Measure* (SCIM) is a brief, easy to administer, valid, and reliable instrument developed to assess normative and problematic dimensions of identity functioning (Kaufman, Cundiff & Crowell, 2015). The SCIM was initially developed to address limitations associated with measures of normative identity development (which were often ill-suited for clinical purposes) and existing clinical instruments. For example, most clinical instruments failed to draw from the broader identity literature and focused exclusively on identity-related problems rather than assessing a range of adaptive and maladaptive processes/outcomes. Furthermore, most identity related items were embedded in clinical measures of personality pathology (e.g., Verheul et al., 2008; Livesley, 2006) and may not have been administered to those seeking care for other psychological problems. Finally, many clinical and developmental measures assessed potential consequences of identity problems such as career/religious/sexual identity uncertainty, yet neglected to assess individuals' thoughts and feelings about their core sense of self (e.g., Berman, Montgomery, & Kurtines, 2004; Samuel & Akhtar, 2009).

SCIM items were generated to capture key aspects of identity as described by both developmental and clinical scholars (e.g., Berman et al., 2004; Berman & Weems, 2012; Erikson 1968; Chandler, Lalonde, Sokol, & Hallett, 2003; Dunkel, Minor, & Babineau, 2010; Linehan, 1993; Marcia, 1994; Weston et al., 2011; Wilkinson-Ryan & Westen, 2000). Questions assess for healthy experiences of being whole, connected to one's past, and feeling certain about oneself, as well as problems like identity confusion, fragmentation, uncertainty, and discontinuity (Kaufman et al., 2015). Results from the initial validation revealed a three-factor structure subsumed by a second-order overall identity factor. Thus, the SCIM yields a total score and three subscale scores.

The *Consolidated Identity* scale is comprised of items that capture a sense of knowing who one is, identity commitment, consistency in beliefs and values, and positive self-worth. The *Disturbed Identity* scale assesses discontinuity in a person's values, opinions and beliefs, and overdependence on others for defining one's identity. Finally, the *Lack of Identity* scale captures feelings of emptiness, being lost, broken, and simply not knowing who one is.

Although both Disturbed and Lack of Identity subscales reflect identity-related difficulties, empirical and theoretical evidence indicate the constructs they measure are distinct. Subjective feelings of non-existence and/or being fundamentally broken (i.e., lacking a sense of identity) are different from vacillations in identity-related actions, urges, beliefs, values, etc. (i.e., identity disturbance), with the former showing stronger associations with indices of psychopathology in community samples (Kaufman et al., 2015).

The SCIM is dimensional and was intended for use with persons with or without psychopathology. Item scores from the original validation studies were normally distributed, suggesting the SCIM captures a wide range of continuous identity-related outcomes for each of the scales (Kaufman et al., 2015). Consistent with a dimensional approach, it is also possible for individuals to score high or low on all three factors, none of the factors, or some combination. For example, individuals who are in the process of exploring their identity, or in the midst of major changes could endorse items on both the consolidated and disturbed factors. However, intercorrelations between the subscales show a general trend that Consolidated Identity is negatively associated with both Disturbed and Lack of Identity, whereas Disturbed Identity and Lack of Identity factors are positively correlated.

Previous studies have examined the SCIM in the context of community and student samples (Kaufman et al., 2015). Among such participants, elevated SCIM scores were associated with clinically-relevant problems like borderline personality disorder symptoms (BPD), self-inflicted injury (SII), maladaptive coping strategies, and alcohol and drug use. For example, participants who endorsed drug use within 3 months of study enrollment reported higher SCIM total, Disturbed, and Lack of Identity scores than participants without current use. Preliminary evidence indicates the SCIM performs well with adolescents and adults ranging in age from 12 to 74 (Kaufman et al., 2015; Kaufman & Crowell, 2014). Researchers have begun to translate the SCIM for cross-cultural use and have replicated the original factor structure (e.g., Bogaerts, Claes, Kaufman & Luyckx, 2017). Further, scores on the SCIM appear to be associated with suicide, SII, and BPD among clinical samples— however, these results are only preliminary given small sample sizes and the fact that identity was not a primary outcome of interest in these prior studies (Kaufman & Crowell, 2014). Further work is needed to examine scores derived from clinical samples experiencing significant functional impairment.

Chemical dependence is an exceptionally common clinical problem that co-occurs across a range of other internalizing and externalizing diagnoses (Center for Behavioral Health Statistics and Quality, 2015; National Institute on Drug Abuse [NIDA], 2010). Moreover, those affected by substance use disorders (SUDs) are at elevated risk for chronic and severe functional impairment, medical sequelae, and death (NIDA, 2017). Some conceptual and empirical work has linked identity problems to substance use (Jones, 1992; Rose & Bond, 2008; Talley et al., 2011), and common comorbid conditions such as eating pathology (Farchaus et al., 2007; Verschueren et al., 2017; Wheeler et al., 2001; Winston, 2005). Identity-related impairment and substance use disorders are each associated with compromised self-regulatory processes (see Kaufman & Crowell, 2018). For the present study, we sought to test the validity of the SCIM among a complex, multi-diagnostic sample to extend our understanding of how this instrument performs with clinical populations.

Data were collected among a sample of disadvantaged women seeking treatment for substance use dependence. Though participants were seeking treatment for substance use, many experienced comorbid psychiatric problems. We hypothesized that the 3-factor structure of the SCIM obtained in community and college samples would be retained. We also expected that chemically dependent participants would demonstrate elevated SCIM scores on Disturbed Identity and Lack of Identity subscales, which are indicative of greater identity impairment, per results of the original SCIM validation studies. Furthermore, as compromised identity functioning appears to be a key risk factor for multiple forms of psychopathology (Kaufman et al., 2014), we expected that SCIM scores would be positively associated with measures of related clinical problems such as emotion dysregulation. Although more exploratory, we also examined how SCIM scores would associate with other symptom measures in our sample. Specifically, given the study's overarching purpose (assessing the SCIM's potential utility for evaluating identity functioning among psychiatrically impaired populations), we assessed how SCIM scores correlated with eating pathology, depression, and posttraumatic stress disorder.

Method

Participants

The current study analyzed pre-treatment data from 216 participants enrolled in an intervention study for women receiving intensive outpatient treatment for alcohol and drug SUDs (see Price et al., 2018). Participants aged 20–61 years old (median age 35) were recruited for a larger treatment study enrolling women from three non-profit community-based clinics in the Pacific Northwest. Primary substances endorsed at enrollment were alcohol (40.5%) and stimulants (43.1%). A minority of participants (16.4%) reported primary use of narcotics, marijuana, non-narcotic opioids, sedatives, or multiple substances (e.g., stimulants plus narcotics, alcohol, or marijuana). With regard to racial composition, the sample was largely White (83%), with 4% identifying as African American, 5% as Native American, 1% as Asian, and 7% reporting mixed race. Nine percent of the sample identified their ethnicity to be Latina. Most participants were high school graduates (81%). The unemployment rate in the sample was 44% and only 9% reported a monthly income at or above $1,000. Most participants (87%) were receiving Medicaid/Medicare and 66% were mothers with underage children.

The majority of the sample endorsed elevated symptoms of comorbid mental health problems like depression, post-traumatic stress disorder (PTSD), and eating disorders. A large percentage of the women reported taking prescription medications (76% were taking anti-depressants, 46% were taking sleep aids, and 24% were taking mood stabilizers). Additional characteristics of the sample are presented elsewhere (see Price et al., 2018).

Procedure

Participants were recruited through flyers distributed during their group SUD treatment, as well as a verbal explanation of the study provided by a Research Coordinator. Interested individuals who were eligible for participation were asked to fill out a form with their contact information for follow-up screening and consent. Inclusion criteria were: enrolled in

intensive outpatient treatment for SUD at one of the three treatment facilities, fluent in English, willing to forego manual (e.g., massage) or mind-body therapies for the first 3 months of the study, and willing to provide permission to collect treatment attendance and urinalysis data from facility electronic medical records. Exclusion criteria included: untreated psychotic disorder diagnosis or symptoms, cognitive impairment, currently pregnant, or unable to remain in study for one year duration. Study procedures were approved by the University of Washington's Institutional Review Board and participants were provided written informed consent prior to study enrollment. Research reported is in compliance with the Helsinki Declaration and the APA ethics code. Once enrolled, participants were scheduled for an initial pre-treatment assessment that involved completing a set of self-report questionnaires to gather demographic data, identity functioning, substance use, difficulties with emotion regulation, mental health symptoms, and related health outcomes (see below). A trained research coordinator collected all data at participants' respective SUD treatment facilities.

Measures

The *SCIM* is a 27-item, self-report measure developed to assess identity consolidation and clinically-relevant identity disturbance (Kaufman et al., 2015). SCIM items were designed to examine core aspects of identity including: (a) self-concept and role continuity across environments and among different persons, (b) consistencies in values and interests, (c) self-worth, (d) self/other-differentiation, and (e) cohesion (i.e., feeling whole or complete). Participants were asked to indicate how much they agree or disagree with 27 self-focused statements. Response options range from 1 to 7 (1 = *strongly disagree*; 7 = *strongly agree*). Total scores were created in which all items were recoded such that higher scores mark greater identity disturbance.

Several questionnaires were used to evaluate participants' broad emotional and mental health functioning. The *Difficulties with Emotion Regulation Scale (DERS*; Gratz & Roemer, 2004) is a widely used self-report measure indexing difficulties in emotion regulation. The DERS consists of 36 items with responses along a five-point Likert-style scale (1=*Almost never* to 5=*Almost always*). Total scores can range from 36 to 180, with higher scores reflecting greater dysregulation. Previous research has indicated the DERS has high internal consistency (Cronbach's α = .93) and good test-retest reliability (ρ_I = .88 over a 4–8 week period). It has demonstrated adequate construct validity in both clinical and non-clinical populations, correlating with concurrent symptoms of psychopathology and significantly predicting future mood and behavioral problems. Internal validity in the current sample was excellent (Cronbach's alpha = .95).

Participants completed the *Beck Depression Inventory-II (BDI-II*), a 21-item questionnaire used to measure severity of depressive symptoms (Beck, Steer, Ball & Ranieri, 1996). Scores on the BDI-II have excellent internal consistency (α.= 93; Dozios, Dobson, & Ahnberg, 1998), and high test-retest reliability (r= .93; Beck & Steer, 1996). Scores can range from 0 – 63 with scores above 29 indicating moderate to severe depression. Internal reliability within the current sample was excellent (α = .92).

Participants also completed measures of specific psychopathology-related symptoms. The *PTSD Symptom Scale-Self Report (PSS-SR*; Foa, Riggs, Dancu, & Rothbaum, 1993) was used to assess the frequency of symptoms of Post-Traumatic Stress Disorder (PTSD). The PSS-SR is a 17-item questionnaire, with each question rated on a scale of 0 (*Not at all*) to 3 (*Almost always*). Scores above 14 are indicative of PTSD (Coffey, Gudmundsdottir, Beck, Palyo, & Miller, 2006). Previous studies have shown the PSS-SR to have high internal consistency (α = .82), adequate test-retest reliability (r = .74 over a one-month period), and to significantly correlate with other measures of PTSD symptoms and related psychopathology (Foa et al., 1993). Internal consistency was excellent in the current sample (α = .82).

The *Eating Disorder Examination Questionnaire (EDE-Q*; Fairburn & Beglin, 1994) is a 33-item scale measuring eating disorder pathology. The EDE-Q has is significantly associated with binge eating and weight control behaviors and effectively differentiates eating disorder cases from non-cases (z = 0.66; Mond et al., (Mond, Hay, Rodgers, Owen, & Beumont, 2004). All subscales have been shown to possess adequate internal consistency (αs ranging from .71 to .93) and high test-retest reliability (rs between .81 and .94; Luce & Cowther, 1999). Cronbach's alpha for this sample was .78.

The *Penn Alcohol Craving Scale (PACS*; Flannery, Volpicelli, & Pettinati, 1999) is a brief measure of the frequency, intensity, and duration of past-week alcohol cravings. The PACS was revised to include cravings for drugs and alcohol. The PACS consists of five items, each rated on a Likert-style scale of 0 to 6, with lower scores indicating fewer and/or less intense cravings. The PACS has shown strong internal consistency (α =.92), significant convergence with other measures of alcohol cravings (rs between .39 and .55), and scores are predictive of alcohol relapse. Internal reliability was excellent in the current sample (α =.92).

Finally, participants completed the *Patient Health Questionnaire-15 (PHQ-15*; Kroenke, Spitzer, & Williams, 2002), a brief index of somatic symptoms. Items on the PHQ-15 are rated on a scale ranging from 0 (*Not bothered at all*) to 2 (*Bothered a lot*). The PHQ shows strong psychometric properties in internal medicine settings (α = .80, and significant associations with healthcare utilization, disability days, symptom-related difficulties, and functional decline). Internal reliability within the current sample was good (α = .81).

Analytic Plan

In order to determine whether the SCIM's previously established three-factor structure was applicable in samples experiencing more severe clinical difficulties, we used MPlus 7.2 (Muthén & Muthén, 2012) to perform a confirmatory factor analysis (CFA) using maximum likelihood estimation. The model tested included three lower-order factors—Disturbed Identity, Consolidated Identity, and Lack of Identity—that loaded onto one second-order factor, representing the overarching Identity Functioning construct (cf. Kaufman et al., 2015). All items were constrained to load exclusively onto the factors previously determined by Kaufman et al., 2015. Additionally, we sought to replicate the marker-variable technique used in previous research, in which items 16, 12, and 20 were chosen as the theoretical anchors for the Disturbed, Consolidated, and Lack of Identity subscales, respectively. The

Lack of Identity factor was used as the marker variable for the higher-order Identity Functioning factor (SCIM total score). The hypothesized model is depicted in Figure 1.

After examining the SCIM's factor structure, we assessed the reliability and validity of its subscales and composite score. Internal reliability was evaluated using Cronbach's α. Convergent and divergent validity were determined by examining associations between SCIM responses and self-report measures of physical and psychological functioning. We expected that participants reporting greater identity-related distress would endorse more problems across all domains. Given previous findings (Kaufman et al., 2015) we expected SCIM scores would show particularly strong correlations with measures of depression, and emotion dysregulation (e.g., BDI and the DERS).

Results

CFA results demonstrated that all items loaded significantly onto the hypothesized factors ($p < 0.01$), with the three lower-order factors loading significantly onto the second-order Identity Functioning factor (representing the SCIM total score; $p < 0.001$). The item and factor loadings in the present sample were highly similar to those demonstrated validation and confirmatory community samples (see Table 1 & 2; Kaufman et al., 2015). The root-mean-square error of approximation for the overall model reflects an adequate fit to the data (RMSEA = 0.06; Hu & Bentler, 1999). The comparative fit index (CFI = 0.84) and Tucker-Lewis index (TLI = 0.82) suggest the fit to be less adequate; however, this was also the case in the original sample and was hypothesized to reflect an issue of parsimony, which is prioritized in the RMSEA. The SCIM subscales demonstrated good internal reliability in the current sample (α = .82 for Disturbed Identity; α = .73 for Consolidated Identity; α = .86 for Lack of Identity). Reliability for the composite score was also good (α = .86).

In line with predictions, all SCIM scores were associated with mental and physical health problems (see Table 3). Replicating the results from a previous undergraduate sample (Kaufman et al., 2015), there were strong, positive correlations between identity dysfunction and depression, and emotion-regulation difficulties. SCIM total scores also showed moderate, positive associations with PTSD symptoms, disordered eating behaviors, substance cravings, and somatic symptoms.

Discussion

Data collected from a diagnostically diverse treatment-seeking sample support the original SCIM factor structure. The three-factor solution and item loadings were tested among significantly impaired participants using an *a priori* confirmatory approach. Although evidence of overall model fit was mixed, the item loadings generally replicated those demonstrated from prior community samples. Furthermore, data were collected by a different research team than the lab conducting the initial validation studies, in another region of the United States. Each of these serves as evidence of the SCIM's generalizability and supports applying the original scoring approach among clinical populations.

Consistent with the original validation and replication studies (Kaufman et al., 2015), elevated scores on the SCIM were associated with other clinically-significant problems such

as emotion dysregulation and depression. Results also demonstrated that identity-related problems as assessed by the SCIM were associated with eating pathology and post-traumatic stress symptoms among those seeking treatment for SUDs. Long-standing theories and more recent empirical evidence indicate identity functioning is a crucial developmental task supporting later functioning in a number of domains (e.g., Erikson, 1968; Kaufman & Crowell, 2018). Thus, it is not surprising that problems in this area are associated with a wide range of psychiatric presentations and other transdiagnostic symptoms of psychopathology. In fact, the most robust associations in the current study were between identity dysfunction as measured by the SCIM and emotion dysregulation, which is a key contributor to most psychological disorders (Beauchaine & Zisner, 2017). Longitudinal research is needed to more clearly establish directionality of these effects, and explore pathways by which maladaptive identity processes and outcomes transact with other risk and vulnerability factors across diagnostic presentations.

Based on the results of the original validation study, we had expected the Lack of Identity and Disturbed Identity subscales to be most strongly associated with indices of psychopathology. Consistent with our hypothesis, the Lack of Identity subscale was most strongly correlated with each psychiatric condition we measured. Contrary to our expectations, the SCIM Total Score was more robustly associated with measures of psychopathology compared with the Disturbed Identity Scale. Thus, the processes and outcomes assessed by the "Lack of Identity" scale may be most strongly related to psychopathology, and could function to parsimoniously differentiate those who are most impaired. The total score likely captures a wider range of identity-related outcomes by virtue of including all the scale's items. Since we did not recruit a non-treatment seeking comparison group, we are unable to discern if these subscale associations differentiate clinical from community samples in a meaningful way. However, mean scores on SCIM Total Score, Lack of Identity, and Lack of Consolidated Identity were elevated in this sample relative to student and community samples collected in the original validation article, yet Disturbed Identity scores were not (see Table 3; Kaufman et al., 2015). Further research is needed.

This study has several limitations. First, although our sample represented an especially at-risk group, participants were primarily White and all female. Males were not represented. Given the length of the SCIM, the sample size in the current study is smaller than is optimal for CFA. Further efforts are needed to confirm the factor structure in larger populations, and test its utility among racially/ethnically diverse and male clinical samples. Second, the current data can only speak to the structure and utility of the SCIM at a single point in time. Although CFA results from the current study suggest that the SCIM's factor structure is stable across different populations, longitudinal studies are needed to evaluate its measurement invariance over time (Brown, 2014). Additionally, future studies should explore the SCIM's predictive power as well as its utility in a therapeutic context. Identity formation is a key developmental process that begins relatively early in life (Erikson, 1956). Difficulties with this milestone are linked to deficits in a range of other domains and appear to increase risk for both internalizing and externalizing problems (Carlson, Egeland, & Sroufe, 2009). We do not yet know if the SCIM can be used as a screening tool to predict elevated risk for psychopathology among adolescents. Further research is also needed to

assess if this instrument is sensitive to changes in identity functioning over the course of treatment. The SCIM may be well suited to each of these functions, given its brevity and promising psychometric properties.

Results of the study demonstrate that identity-related problems as measured on the SCIM is associated with psychopathology among a disadvantaged, significantly impaired clinical sample. The SCIM has performed consistently across clinical and community samples and offers a means of assessing an often overlooked, yet clinically relevant, domain of functioning. Reliable and conceptually-sound tools that assess a range of adaptive to maladaptive identity-related functioning are sorely needed—particularly as the field moves toward dimensional models and transdiagnostic sources of risk.

Acknowledgments:

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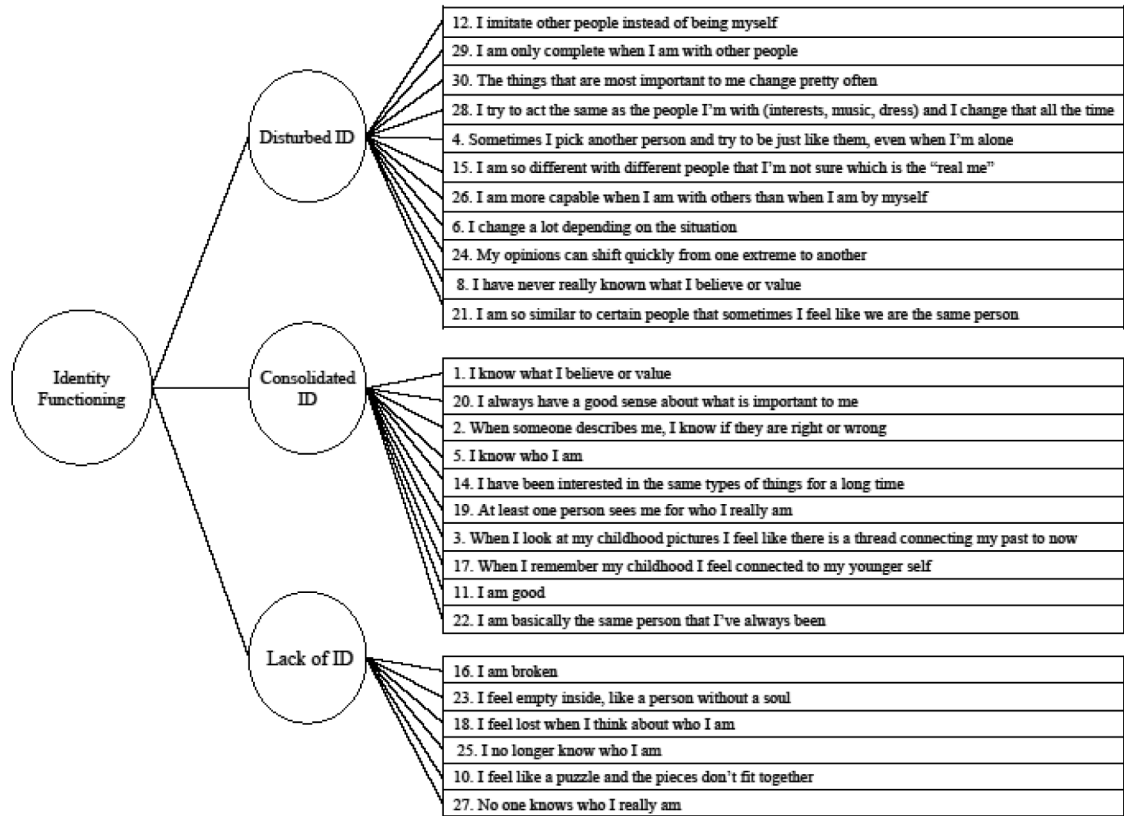
Figure 1.

Standardized SCIM item loadings

Table 1.

Item	Disturbed ID		Consolidated ID		Lack of ID	
	Loading	SE	Loading	SE	Loading	SE
I imitate other people instead of being myself	0.64	0.05				
I am so different with different people that I'm not sure which is the "real me"	0.62	0.05				
I am only complete when I am with other people	0.56	0.06				
The things that are most important to me change pretty often	0.61	0.05				
I have never really known what I believe or value	0.55	0.06				
I try to act the same as the people I'm with (interests, music, dress) and I change that all the time	0.59	0.05				
My opinions can shift quickly from one extreme to another	0.55	0.06				
I change a lot depending on the situation	0.48	0.06				
Sometimes I pick another person and try to be just like them, even when I'm alone	0.51	0.06				
I am more capable when I am with others than when I am by myself	0.41	0.07				
I am so similar to certain people that sometimes I feel like we are the same person	0.41	0.07				
I always have a good sense about what is important to me			0.74	0.04		
I know who I am			0.64	0.05		
I know what I believe or value			0.58	0.05		
At least one person sees me for who I really am			0.37	0.07		
I am good			0.64	0.05		
When I remember my childhood I feel connected to my younger self			0.25	0.07		
When someone describes me, I know if they are right or wrong			0.59	0.05		
I have been interested in the same types of things for a long time			0.48	0.06		
I am basically the same person that I've always been			0.29	0.07		
When I look at my childhood pictures I feel like there is a thread connecting my past to now			0.30	0.07		
I am broken					0.53	0.05
I feel lost when I think about who I am					0.81	0.03
I feel empty inside, like a person without a soul					0.77	0.03
I no longer know who I am					0.84	0.03
I feel like a puzzle and the pieces don't fit together					0.75	0.04
No one knows who I really am					0.58	0.05

Note. All item loadings are significant at the .01 level.

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Table 2.

Standardized SCIM factor loadings

Factor	Identity Functioning	
	Loading	**SE**
SCIM Lack of Identity	1.00	--
SCIM Consolidated Identity (reversed)	0.767	0.043
SCIM Disturbed Identity	0.607	0.057

Note. All factor loadings are significant at the .01 level.

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Table 3.

Bivariate correlations between SCIM scores and measures of mental and physical health functioning

	DERS Total Score	BDI-II Total Score	PSS-SR Total Score	PACS Total Score	EDE-Q Mean Score	PHQ-15 Total Score	M(SD)
SCIM Total Score	.620 **	.457 **	.286 **	.232 **	.381 **	.201 **	74.80 (19.85)
Disturbed ID	.385 **	.181 **	0.134	0.119	.238 **	0.107	28.89(10.30)
Consolidated ID	.436 **	.331 **	0.129	.134 *	.262 **	0.020	26.81 (7.17)
Lack of ID	.626 **	.599 **	.410 **	.306 **	.397 **	.339 **	19.08(8.13)

Note. DERS = Difficulties with Emotion Regulation Scale; BDI-II = Beck Depression Inventory-II; PSS-SR = PTSD Symptom Scale-Self Report; PACS = Penn Alcohol Craving Scale; Eating Disorder Examination Questionnaire; PHQ-15 = Patient Health Questionnaire-15.

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

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

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