Psychiatry Research 269 (2018) 419–424

Contents lists available at ScienceDirect

Psychiatry Research

journal homepage: www.elsevier.com/locate/psychres

Impulse control difficulties while distressed: A facet of emotion dysregulation links to Non-Suicidal Self-Injury among psychiatric inpatients at military treatment facilities

Margaret M. Baer[a], Jessica M. LaCroix[a], Joy C. Browne[a], Helena O. Hassen[a], Kanchana U. Perera[a], Alyssa Soumoff[b], Jennifer Weaver[c], Marjan Ghahramanlou-Holloway[a,*]

[a] Department of Medical and Clinical Psychology, Uniformed Services University of the Health Sciences (USUHS), 4301 Jones Bridge Road, Bethesda 20814-4799, MD, USA
[b] Walter Reed National Military Medical Center, National Intrepid Center of Excellence, Bethesda, MD, USA
[c] Fort Belvoir Community Hospital, Fort Belvoir, VA, USA

ARTICLE INFO

Keywords:
Emotion dysregulation
Impulse control
Impulsivity
Military
Non-suicidal self-injury (NSSI)
Psychiatric inpatient
Suicide ideation
Suicide attempt
Suicide

ABSTRACT

Links between emotion dysregulation, suicide ideation, and suicidal versus non-suicidal self-injury (NSSI) are poorly understood within military samples. United States service members and beneficiaries (N = 186), psychiatrically hospitalized following a suicidal crisis, completed the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004), and reported lifetime suicide ideation, attempts, and NSSI. We expected that emotion dysregulation would positively associate with worst lifetime suicide ideation, multiple suicide attempt status, and lifetime NSSI. Suicide ideation severity and multiple suicide attempts did not associate with DERS components. Notably, difficulties with impulse control (feeling out of control while distressed) was positively associated with NSSI history. Theoretical models that clearly describe the role of emotion dysregulation in suicidal thoughts, its progression to suicidal actions, and NSSI are needed to advance clinical care for this highly vulnerable group. Longitudinal and micro-longitudinal study designs require further investigation.

1. Introduction

Emotion dysregulation, an understudied construct in United States military samples, is nevertheless frequently implicated in self-injurious thoughts and behaviors (i.e., NSSI, suicide ideation, suicide attempts), which are a public health concern among military service members (Bryan and Bryan, 2014; Nock et al., 2014). Emotion dysregulation is an integral component of several conceptual theories or models of self-injurious thoughts and behaviors. For instance, Baumeister (1990) in his escape theory of suicide, emphasizes the role of negative affect, which the suicidal person attempts to decrease with cognitive deconstruction (i.e., inhibiting aversive self- awareness), allowing attempting suicide. Linehan (1993) argues that individuals attempt suicide to inhibit negative emotional states and engage in NSSI to replace internal pain with physical pain or diminish emotional numbness. Similarly, Chapman et al. (2006) in the experiential avoidance model describe NSSI perpetuation as self-reinforcing, to avoid unwanted emotions. In the emotional cascade model, created for individuals with Borderline Personality Disorder, Selby and Joiner (2009) posit that NSSI facilitates relief and provides distraction from increasing emotional intensity and ruminative thoughts. Finally, reducing unpleasant internal states (i.e., negative affect) is a function in the four function model of NSSI (Nock and Prinstein, 2004).

Emotion dysregulation is empirically linked to suicide ideation and attempts, particularly via the Gratz and Roemer (2004) conceptualization Although emotion dysregulation does not have a commonly held definition (Veld et al., 2012), the Gratz and Roemer (2004) conceptualization serves as a comprehensive framework to relate emotion dysregulation to psychopathology and self-injurious thoughts and behaviors. It is therefore applicable to clinical populations, while also being transdiagnostic. Gratz and Roemer view emotion dysregulation as multi-dimensional, consisting of: (1) difficulties with emotional awareness (e.g., “When I'm upset I [don't] take time to figure out what I'm really feeling”) (2) difficulties with emotional clarity (e.g., “I have no idea how I am feeling”), (3) non-acceptance of emotional responses (e.g., “When I'm upset, I become irritated at myself for feeling that way”), (4) impulse control difficulties (e.g., “When I'm upset, I feel out of control”), (5) reduced goal-directed behavior (e.g., “When I'm

* Corresponding author.
E-mail address: marjan.holloway@usuhs.edu (M. Ghahramanlou-Holloway).

https://doi.org/10.1016/j.psychres.2018.08.082
Received 8 March 2018; Received in revised form 31 July 2018; Accepted 23 August 2018
Available online 24 August 2018
0165-1781/

upset, I have difficulty thinking about anything else"), and (6) the flexible use of emotion regulation strategies (e.g., "When I'm upset, I believe there is nothing I can do to make myself feel better". Of note, all traits except emotional clarity are primarily assessed when the individual is distressed.

Several studies have examined links between emotion dysregulation (as measured by the Difficulties in Emotion Regulation Scale (DERS; Gratz and Roemer, 2004)) and suicide ideation or attempt. Suicide ideation severity has positively correlated with all emotion regulation deficits measured by the DERS excluding lack of emotional awareness (Weinberg and Klonsky, 2009). Further, in young adult samples, suicide ideation has been linked to difficulties with emotion regulation strategies (Miranda et al., 2013) and emotional clarity (Neacsiu et al., 2017). Deficits in emotional clarity and emotion regulation strategies were associated with increased risk for a past-year suicide attempt among high school students (Pisani et al., 2013). Additionally, young adults with multiple suicide attempts versus those without had significantly elevated difficulties with emotion acceptance, impulse control, and emotion regulation strategies (Miranda et al., 2013). However, no significant differences were identified between those who attempted suicide once compared to multiple times (Miranda et al., 2013; Preyde et al., 2014). Finally, links between emotion dysregulation and suicide attempts may not always be direct. In two samples (undergraduates and inpatients), the direct effect of the total DERS score on suicide attempts was partially mediated by NSSI (Anestis et al., 2014).

In terms of NSSI, all DERS' emotion regulation deficits (Emery et al., 2015), or almost all facets besides lack of emotional awareness (Whitlock et al., 2015), were elevated in those with a history of NSSI compared to those without, while fewer difficulties with accessing emotion regulation strategies prospectively predicted NSSI cessation (Heath et al., 2008) in college samples. Difficulties with impulse control and goal directed behaviors have partially mediated NSSI reduction among youth (Slee et al., 2008). Females endorsing frequent NSSI reported significantly greater difficulties in goal directed behaviors, emotion regulation strategies, emotional awareness and clarity than those without past NSSI (Gratz and Roemer, 2008). In an adolescent sample, when controlling for other emotion dysregulation facets, internalizing and externalizing disorders, only the limited access to strategies subscale was associated with NSSI status (Perez et al., 2012).

To our knowledge, the present study is the first to examine which aspects of the Gratz and Roemer conceptualization of emotion dysregulation are associated with NSSI, suicide ideation and suicide attempt among military psychiatric inpatients with a lifetime suicide attempt history. Given inconsistent and limited data on associations between facets of emotion dysregulation and suicide ideation and suicide attempts, we explored potential associations between more severe lifetime suicide ideation at the worst time point and DERS emotion dysregulation facets (Clarity, Awareness, and Acceptance, Impulse, Goals, and Strategies). We also explored emotion dysregulation facet differences between individuals with multiple versus single suicide attempts. Finally, given the greater body of literature elucidating links between NSSI and emotion dysregulation, we hypothesized that individuals with a lifetime history of NSSI versus without would report higher scores on all dimensions, indicating greater difficulties with emotion regulation.

2. Methods

2.1. Participants

Study participants were psychiatric inpatients ($N = 186$) admitted either for suicide ideation and/or a suicide attempt, with a lifetime history of at least one suicide attempt. The majority (70%) of participants had made multiple suicide attempts, and approximately half (48%) endorsed an NSSI history. See Table 1 for detailed demographic information.

Table 1
Demographics by lifetime history of suicide attempt and Non-Suicidal Self-Injury (NSSI).

	Suicide Attempt History		NSSI history[a]	
	Single Attempts ($N = 55$) N[b] (%)	Multiple Attempts ($N = 131$) N[b] (%)	No NSSI history ($N = 93$) N[b] (%)	NSSI history ($N = 87$) N[b] (%)
Demographic Characteristics				
Age, Years, Mean (SD)	30.64 (9.31)	29.03 (8.58)	30.25 (8.71)	28.64 (8.87)
Gender				
Female	24 (43.64)	42 (32.06)	22 (23.66)	42 (28.28)
Male	31 (56.36)	89 (67.94)	71 (76.34)	45 (51.72)
Race				
White/Caucasian	34 (61.82)	93 (70.99)	60 (64.52)	61 (70.11)
Black/African American	13 (23.64)	20 (15.27)	19 (20.43)	14 (16.09)
Other	8 (14.55)	18 (13.74)	14 (15.05)	12 (13.79)
Education				
High School Diploma or Equivalent	12 (21.82)	29 (22.14)	18 (19.35)	21 (24.14)
Some College, No Degree	32 (58.18)	72 (54.96)	51 (54.84)	49 (56.32)
Higher Education Degree	11 (20.00)	30 (22.90)	24 (25.81)	17 (19.54)
Marital Status				
Never Married	11 (20.00)	51 (38.93)	31 (33.33)	31 (35.63)
Married	32 (58.18)	54 (41.22)	38 (40.86)	43 (49.43)
Divorced/ Separated/ Widowed	12 (21.82)	26 (19.85)	24 (25.81)	13 (14.94)
Branch of Service[c]				
Army	23 (43.40)	44 (38.26)	29 (32.58)	35 (47.30)
Air Force	6 (11.32)	13 (11.30)	13 (14.61)	6 (8.11)
Navy	15 (28.30)	30 (26.09)	25 (28.09)	19 (25.68)
Marine Corps	8 (15.09)	26 (22.61)	20 (22.47)	13 (17.57)
Coast Guard	1 (1.89)	2 (1.74)	2 (2.25)	1 (1.35)
Pay Grade[c]				
Junior Enlisted	23 (43.40)	50 (43.48)	36 (40.45)	35 (47.30)
Senior Enlisted	23 (43.40)	43 (37.39)	40 (44.94)	23 (31.08)
Officer	7 (13.21)	22 (19.13)	13 (14.61)	16 (21.62)

Note: $N = 186$. NSSI = non-suicidal self-injury. [a]NSSI history was unknown for 6 participants. [b]Sample sizes may not sum to total due to missing data. [c]Based military sample, $n = 168$.

2.2. Measures

2.2.1. Emotion dysregulation

The Difficulties in Emotion Regulation Scale (DERS; Gratz and Roemer, 2004) is a 36-item self-report measure with excellent internal consistency (Cronbach's $\alpha = 0.93$) and test-retest reliability ($r = 0.88$). The DERS six subscale scores were utilized for study analyses: difficulties with (1) emotional clarity [Clarity], (2) emotional awareness [Awareness], (3) accepting one's emotional experiences [Non-acceptance], (4) controlling impulsive behavior [Impulse], (5) engaging in goal directed behavior [Goals]; and (6) accessing emotion regulation strategies while distressed [Strategies].

Participants were asked to endorse how often each of the 36 DERS statements apply to them on a 5-point scale ranging from 1 *almost never* to 5 *almost always*. Individual subscales consisted of five (Clarity, Goals) or six (Awareness; Nonacceptance; Impulse) items each, except for the eight-item Strategies. Total scores for DERS range from 36 to 180; in our sample, the total DERS scores ranged from 46 to 172. Higher scores indicated greater difficulties with emotion regulation. For the current sample, the alpha coefficients were high: DERS total score $\alpha = 0.93$, Clarity $\alpha = 0.84$, Awareness $\alpha = 0.83$, Nonacceptance $\alpha = 0.92$, Impulse $\alpha = 0.88$, Goals $\alpha = 0.90$, and Strategies $\alpha = 0.87$.