



SHORT COMMUNICATION

Psychological pain and self-harming behaviours in an adulthood community sample: An exploratory study



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Abstract This study evaluated the contribution of psychological pain to self-harming behaviours, controlling for several co-variables. A convenience sample of 207 U.S. residents provided socio-demographic and clinical information and responded to the Psychache Scale. Logistic regression analysis demonstrated that when controlling for the significant co-variables of drug use and having a psychiatric diagnosis, psychological pain provided a significant contribution in predicting self-harming behaviours. Psychological pain also correlated with the frequency of self-harming behaviours, controlling for significant co-variables. We conclude that, when clinicians collect life history and assess relevant risk factors for self-harming behaviours, it is also important to assess psychological pain.

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One of the most compelling psychological models of suicide is that of Shneidman,¹ who stated that psychological pain is a necessary condition for the occurrence of suicidal behaviour. Shneidman¹ used the term psychache to designate an extreme and intolerable form of psychological pain that is seen as the cause of suicide, with all other factors associating with suicide only through this psychological pain.

Two recent meta-analyses^{2,3} have confirmed that psychological pain is a core factor for suicidal behaviours to occur.

Despite documented contributions of psychological pain for suicidal ideation and behaviours, such as suicide attempts, a paucity of evidence exists for its relationships with self-harming behaviours. Self-harming refers to intentional self-poisoning or self-injury, irrespective of the motive or the extent of suicidal intent.⁴ Contrarily to suicidal attempts, the focus is on deliberating causing self harm, not on taking one's own life. However, self-harming has been associated with substantial risk of suicide in adulthood,^{5,6} moderating the relationship between suicide ideation and suicide attempts in young adults.⁷ Fortune et al.,⁸ using a

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psychological autopsy method, concluded that self-harming was a component of a longstanding type of suicide process or trajectory, which included deliberated self-harm prior to death and direct communication to friends and family about suicide ideas and plan. In a 20-year cohort study with young people presenting to hospital with deliberated self-harming, Hawton and Harriss⁵ concluded that risk factors for suicide included male gender, previous deliberate self-harming, psychiatric history (for females), and high suicide intent.

The aim of the present exploratory study is to test the contribution of psychological pain to self-harming behaviours, controlling for several co-variables deemed important in suicide behaviours, namely having a psychiatric disorder and drug use.^{5,6,9,10}

Materials and methods

Participants and procedures

This research was posted as a study on personality, motivations, life history and self-harming on Amazon's Mechanical Turk. Participants were required to be adult U.S. residents over 18 years of age. The recruited sample included 207 U.S. residents (136 men, 70 women, 1 unreported). Mean age was 33.42 years ($SD = 8.74$; range from 20 to 70). 43.1% was married or in a common-law relationship. For education, 17.5% had a high school diploma, 20.4% had started but not completed college/university, 46.1% had completed college/university, and 16.0% had a postgraduate degree. 73.8% of the sample was employed.

This research was approved by a university research ethics board. Participants provided informed consent and responded anonymously to demographic measures and a package of questionnaires including the Psychache Scale, under a larger study investigating psychological variables and suicidality. Upon completion of questionnaires, participants received \$5.00 USD and a debriefing form outlining available mental health resources in case they experienced any distress.

Materials

Demographics

Demographic questions assessed sex, age, marital status, education, and employment status. Further, presence of a chronic physical disease, presence of a previous psychiatric diagnosis, and use of non-prescription drugs were also assessed. In the case of positive answerers, participants were asked to describe which physical illness and/or psychiatric diagnosis, and/or which non-prescription drug they had or used.

Psychological predictor

The Psychache Scale¹¹ is a 13-item measure assessing Shneidman's (1993) concept of psychological pain (e.g., "My soul aches"). Items are answered on 5-point ratings. In previous research, Psychache Scale scores have evinced strong reliability in university and forensic samples. Validity for Psychache Scale scores has been demonstrated through correlations with measures of suicide ideation ($r = .65$), suicide

attempts ($r = .45$), likelihood of future suicide commission ($r = .33$), and self-injury ($r = .50$) (Holden et al., 2001). In the present research, coefficient alpha was .98.

Self-harming criterion

Self-harming was assessed with a single item requiring multiple responses: "At any time during your life, have you deliberately (in other words, of your own will) taken an overdose of medication (in pills or other form) or hurt yourself in any other way (such as cutting yourself, burning yourself or intoxicating yourself with drugs and/or alcohol) in order to deliberately harm yourself?". Possible responses were: 0- No; 1- Yes, once; 2- Yes, more than once. Additional questions were: "If you chose option 2, indicate how many times this has happened"; "If you chose option 1 or 2, indicate when this happened the last time"; "If you chose option 1 or 2, describe how it happened the last time". This item is based on the CASE study^{12,13} and a definition of self-harming as a behaviour with a non-fatal outcome, in which the individual deliberately initiates a behaviour with intent to cause injuries to the self (e.g., cutting, jumping from heights); ingests a substance in an excessive dose in relation to the recognized therapeutic dose; ingests an illicit drug or recreational substance, in an act that the person sees as self-aggression; ingests a non-ingestible substance or object.

Results

Within the sample, 23.8% reported a chronic physical disease, 21.8% indicated a psychiatric diagnosis, and 53.7% reported non-prescription drug use. Mean score on the Psychache Scale was 32.34 ($SD = 16.03$). Self-harming was reported by 58 individuals (28%) with 22 of these indicating multiple occurrences of self-harming acts. Of these 22, 12 reported more than 10 occurrences of self-harming behaviours. When analysing responses concerning the method used, the first two authors agreed that drugs, medications, or alcohol ($n = 17$) and cutting, scrubbing, or burning ($n = 17$) were the most common methods and four individuals reported multiple methods of self-harming.

Because previous psychiatric history and non-prescription drug use were the only socio-demographic or clinical variables that correlated with self-harming, those two variables were included as covariates when the association between psychological pain and self-harming was statistically tested. Further, because of data distribution non-normality, bootstrapping (1,000 resamples) was used for significance testing. Psychological pain provided a significant contribution to self-harming behaviours, even when controlling for significant co-variables in a logistic regression analysis (see Table 1). Using Pearson correlations, Psychache Scale scores correlated significantly with the frequency of self-harming behaviours scored as none, once, or more than once, $r = .32$ (95% CI = .195, .435), $p < .001$, even when partialling out psychiatric history and non-prescription drug use, partial $r = .27$ (95% CI = .155, .376), $p < .001$.

Table 1 Summary of binary logistic regression analysis for predicting self-harming behaviours.

Predictor	<i>B</i>	<i>SE B</i>	95% CI	Odds ratio
Constant	−.10	.91	−1.91, 1.68	.91
Lack of psychiatric history	−.94**	.39	−1.76, −.17	.39
Lack of drug use	−.91*	.39	−1.75, −.20	.40
Psychological pain	.06***	.01	.04, .09	1.06
χ^2	47.00***			
df	3			
R^2 (Cox and Snell)	.21			
R^2 (Nagelkerke)	.29			

* $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

Based on these results, psychological pain assumes an important role in the occurrence of self-harming behaviours, even when controlling for other important variables as drug use and psychiatric disorder. When clinicians collect life history and assess important risk factors for self-harming and suicidal behaviours, it is important to assess psychological pain independently of the presence of a psychiatric diagnosis and other risk factors. Despite this, the Odds ratio value for psychological pain is relatively small.

Assessing the frequency and severity of self-harming behaviours is an important task, as is the implementation of suicide prevention measures, like the restriction of access to means for suicide. It is also important for the better understanding of the factors that contribute to self-harming and suicide. The identification of successful prevention initiatives aimed at young people and those at especially high risk, and the establishment of effective treatments for those who self-harm, are also needed.⁴ Self harming is indeed one of the strongest predictors of suicide, contributing to the transition from ideation to future suicide attempts,⁶ and may not only have a direct effect on suicide risk, but also an indirect effect, thought a contagion or exposure effect. Mars et al.⁹ testing a large cohort sample of 4,772 adolescents demonstrated that besides the presence of a psychiatric disorder, the extent of exposure to self-harm in others differentiated adolescents who attempt suicide from those who only experience suicide ideation.

The present study has limitations. First, we relied exclusively on self-report information and participants were not interviewed to assess the presence of a psychiatric disorder. Second, we investigated a convenience sample, collecting data via an online platform. Online assessments raise a variety of considerations including self-selection and generalizability.¹⁴ The present sample manifested elevated scores on suicide ideation and behaviour relative to normative data, suggesting some self-selection bias. Future studies should assess the relationship of psychological pain with self-harming behaviours in clinical and formally diagnosed individuals via methods other than only self-report.

Author note

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Ethical considerations

This research was approved by a university IRB.

Conflict of interest

The authors have no conflict of interest to declare.

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