



Review article

Pain and self-harm: A systematic review

Olivia J. Kirtley^{a,*}, Ronan E. O'Carroll^b, Rory C. O'Connor^a^a University of Glasgow, Suicidal Behaviour Research Laboratory, Institute of Health and Wellbeing, College of Medical, Veterinary and Life Sciences, Gartnavel Royal Hospital, 1055 Great Western Road, Glasgow G12 0XH, United Kingdom^b University of Stirling, Division of Psychology, School of Natural Sciences, University of Stirling, Stirling FK9 4LA, United Kingdom

ARTICLE INFO

Article history:

Received 1 March 2016

Accepted 28 May 2016

Available online 31 May 2016

Keywords:

Self-harm

Suicide

NSSI

Non-suicidal self-injury

Pain

ABSTRACT

Background: A growing body of research has explored altered physical pain threshold and tolerance in non-suicidal self-injury (NSSI) and suicidal self-harm. The evidence, however, is inconsistent such that the nature of the relationship is unclear, and whether or not this effect is also present in suicidal self-harm is equivocal.

Methods: A keyword search of three major psychological and medical databases (PsycINFO, Medline and Web of Knowledge) was conducted, yielding 1873 records. Following duplicate removal and screening, 25 articles were quality assessed, and included in the final systematic review.

Results: There is strong evidence for increased pain tolerance in NSSI, and some evidence for this in suicidal individuals, but notably, there were no prospective studies. The review found a lack of substantive focus on psychological correlates of altered pain tolerance in this population. Several candidate explanatory mechanisms were proposed within the reviewed studies.

Limitations: The current review was a narrative systematic review; methods used to assess pain were considered too heterogeneous to conduct a meta-analysis.

Conclusions: The evidence suggests that there is elevated pain tolerance among those who engage in NSSI. Future prospective research should determine if altered pain tolerance is a cause or a consequence of the behaviour. The identification of psychological correlates of increased pain tolerance is a neglected area of research. It could provide opportunities for treatment/intervention development, if mediating or moderating pathways can be identified. Too few studies have directly investigated candidate explanatory mechanisms to draw definitive conclusions.

© 2016 Elsevier B.V. All rights reserved.

Contents

1. Introduction	348
1.1. Pain	349
1.2. Pain and NSSI	349
1.3. Research aims of this systematic review	349
2. Methods	349
2.1. Search strategy and screening of results	349
2.2. Inclusion and exclusion criteria	349
2.3. Quality assessment	350
3. Results	350
3.1. Cross-sectional studies	350
3.1.1. Results of quality assessment for cross-sectional studies	350
3.2. Sample characteristics: ethnicity, age and gender	350
3.3. Sample population	350
3.3.1. Type of NSSI	350

* Corresponding author.

E-mail address: olivia.kirtley@glasgow.ac.uk (O.J. Kirtley).

3.3.2.	Recency of NSSI	350
3.3.3.	Measurement of NSSI	350
3.3.4.	Suicidality	350
3.4.	Strengths and limitations of the evidence for altered pain threshold and tolerance in NSSI	351
3.4.1.	Pain induction method, pain threshold and pain tolerance	351
3.4.2.	Gender, pain threshold and pain tolerance	351
3.4.3.	NSSI characteristics, pain threshold and pain tolerance	351
3.5.	Psychological correlates of altered pain threshold and tolerance	351
3.5.1.	Psychological characteristics	351
3.5.2.	Mood	354
3.6.	Candidate explanatory mechanisms for altered pain threshold and tolerance in NSSI	354
3.6.1.	Endogenous opioids	354
3.6.2.	The “defective-self” hypothesis	354
3.7.	Case-control studies	357
3.7.1.	Results of quality assessment for case-control studies	357
3.8.	Sample characteristics: ethnicity, age and gender	357
3.9.	Sample population	357
3.10.	Type of NSSI	357
3.10.1.	Recency of NSSI	357
3.10.2.	Measurement of NSSI	357
3.10.3.	Suicidality	357
4.	Strengths and limitations of the evidence for altered pain threshold and tolerance in NSSI	357
4.1.	Pain induction method, pain threshold and pain tolerance	357
4.2.	Gender, pain threshold and pain tolerance	357
4.3.	NSSI characteristics, pain threshold and pain tolerance	358
5.	Psychological correlates of altered pain threshold and tolerance	358
5.1.	Psychological characteristics	358
5.1.1.	Mood	358
6.	Candidate explanatory mechanisms for altered pain threshold and tolerance in NSSI	358
6.1.	Self-punishment and self-criticism	358
7.	Discussion	358
7.1.	Strengths and limitations of the evidence altered pain threshold and tolerance in those who engage in NSSI	358
7.2.	Methods of pain induction	359
7.3.	Sample and design limitations	359
7.3.1.	Sample	359
7.3.2.	Design	360
7.4.	Psychological and physiological correlates of altered pain threshold and tolerance in NSSI	360
7.5.	Candidate explanatory mechanisms	360
8.	Limitations	361
9.	Conclusions	361
	References	361

1. Introduction

Self-harm, defined as “self-injury or self-poisoning irrespective of the apparent purpose of the act” (NICE: [National Institute for Health and Care Excellence, 2004, 2011](#)), remains one of the most intriguing behavioural phenomena within psychological medicine. It is a world-wide public health issue and approximately 20,000–30,000 adolescents in the UK receive hospital treatment every year as a result of non-fatal self-harm ([Hawton et al., 2006](#)); a behaviour that appears to go against natural instincts for self-preservation ([Tantam and Huband, 2009](#)).

Previous literature has reported self-harm prevalence in the community as ranging from 13.8% in a sample of Scottish adolescents aged 15–16 years old ([O'Connor et al., 2009](#)) and NSSI prevalence as high as 38% in a sample of American college students ([Gratz et al., 2002](#)). Generally, self-harm also appears to be more prevalent in females than males ([Hawton et al., 2010](#); [Nock et al., 2009](#); [O'Connor et al., 2009](#)), although multiple studies have found no significant association between gender and lifetime NSSI ([Gratz, 2001](#); [Klonsky, 2011](#)). In adults and adolescents, NSSI and self-harm are prevalent within the general population, but even more so in those who have a psychiatric condition ([Hawton et al., 2013](#); [Jacobson and Gould, 2007](#); [Klonsky et al., 2003](#)). For adults, NSSI frequently co-occurs with a diagnosis of Borderline

Personality Disorder (BPD), however, NSSI has until only very recently been part of the diagnostic criteria for BPD and thus may not be a true reflection of BPD and NSSI co-morbidity ([Andover and Gibb, 2010](#)).

A primary function of self-harm appears to be as a method of gaining relief from terrible states of mind; however others have also cited it as a form of self-punishment or as being driven by a wish to die ([O'Connor et al., 2009](#)). In addition, [Gratz \(2003\)](#) has reported that those who engage in non-suicidal self-injury (NSSI) feel that it is a method of externalising emotional pain by transforming it into a tangible physical sensation. The exact mechanism or mechanisms that enable self-harm to fulfil these functions however remain, as yet, unclear. (See [Klonsky \(2007\)](#) for a discussion of this issue). Self-harm appears to overcome the “safety-catch”- the intrinsic mechanism that promotes the avoidance of potentially painful experiences ([Tantam and Huband, 2009](#)), which raises the key question of whether those who engage in self-harm may have altered pain threshold and tolerance?

Given the heterogeneous and multiple motives that underpin self-harm ([Hawton et al., 2012](#)), this review set out to include all studies of self-harm irrespective of motivation, as per the NICE Guideline Definition (2004, 2011), with the specific aim of teasing apart the complex and nuanced relationships that exist between motivations and self-harm behaviour. We also did not restrict the

Download English Version:

<https://daneshyari.com/en/article/6229903>

Download Persian Version:

<https://daneshyari.com/article/6229903>

[Daneshyari.com](https://daneshyari.com)